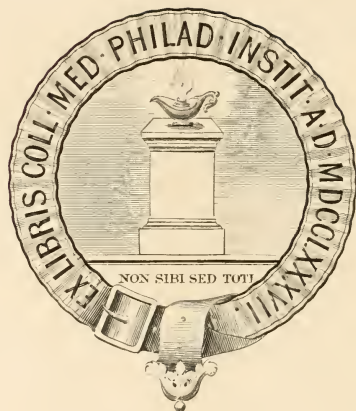


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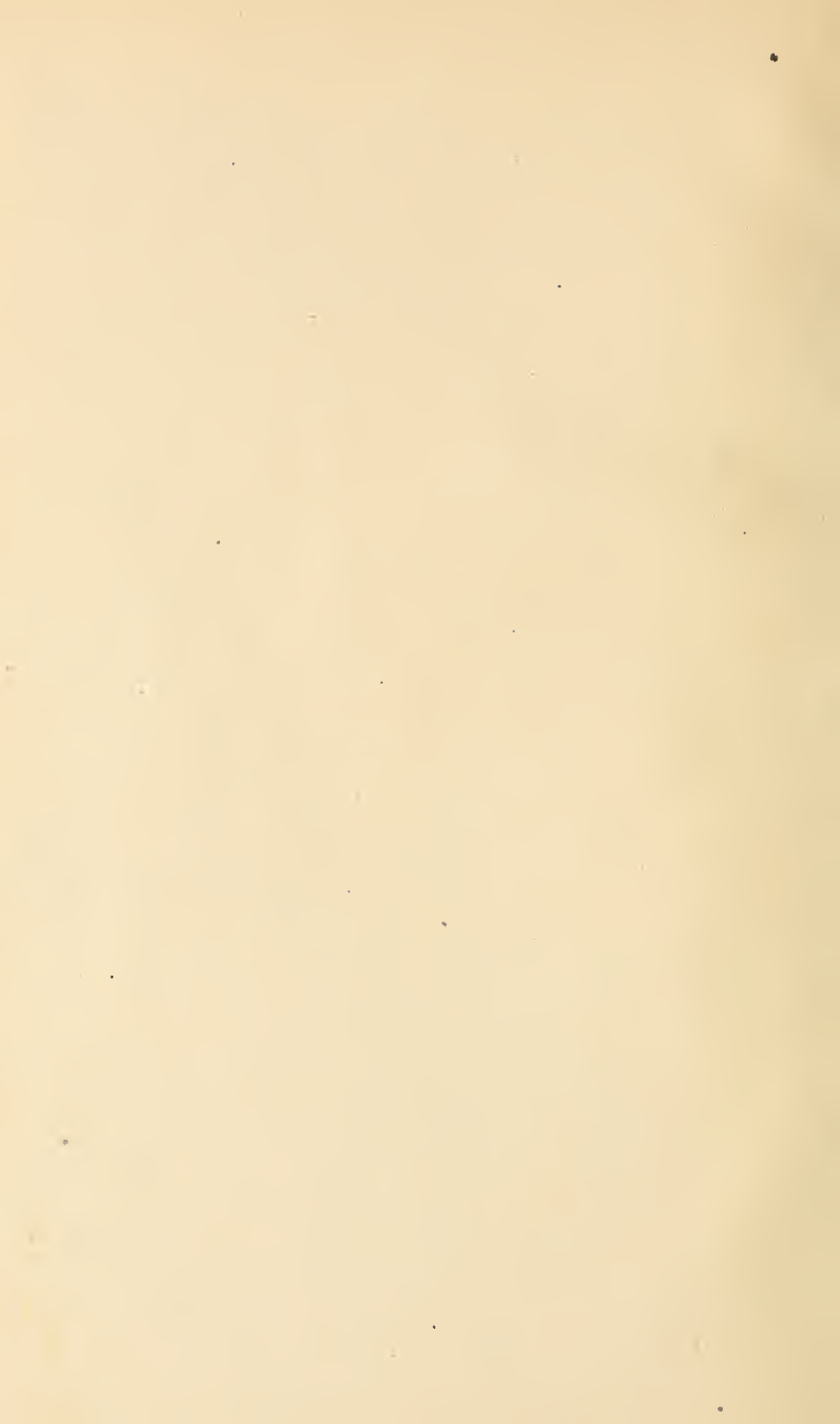


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THE

AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

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THE AMERICAN PRACTITIONER.

JANUARY, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

CASES ILLUSTRATIVE OF RECTAL ALIMENTATION, WITH REMARKS.

BY AUSTIN FLINT, M. D.

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Alimentation by the rectum is not a novelty in medical practice. The importance of the subject suggests the question, to whom belongs the credit of having been the first to resort to this method of meeting the requirements for assimilation? The question is one which I am not prepared to answer, and I leave it for some inquirer who has leisure and inclination for the research in medical literature which it would involve. Leube, in an essay published at Leipzig in 1872,* refers to Samuel Hood as the first to make experimental observation in the present century. Hood's publication (*Analytical Physiology*) was in 1822. He mentions, as the second

* *Ueber Ernährung der Kranken vom Mastdarm aus.* Von Dr. W. O. Leube. Leipzig, 1872.

observer, Steinhäuser, who, in 1841, availed himself of a case of a fistulous opening into the ascending colon to study the digestion of different kinds of food introduced into the large intestine through the fistula. This, of course, was analogous to alimentation by the rectum. Publications of a later date, to which he refers, are by Frerichs (1846), Eickhors (1871), Meissner, Voit and Bauer, and Schultzen (1863).

In Good's *Study of Medicine*, published in 1822, I find no mention made of nutritive injections in connection with occlusion of the œsophagus destroying life by inanition. In the *Cyclopædia of Practical Medicine*, republished in this country in 1845, in connection with the treatment of cancer of the stomach, it is said: "In case of impending inanition from the rejection of all kinds of food from the stomach, some support may be derived from the use of nutritive injections, and the application to the abdomen of large poultices of bread and milk." The small importance attached to the former, may be inferred from the association with the latter. Dunglison, in his *Practice of Medicine*, published in 1842, says of cases of scirrhus seated at the pylorus:—"Nourishing soups or milk may be injected into the colon by means of the rectal tube of Dr. O'Beine, and life be prolonged for a short time in this manner." In Wood's *Practice of Medicine*, edition of 1852, there is no reference to the introduction of food by the rectum in the treatment of either stricture of the œsophagus or cancer of the stomach. Budd, in his treatise on diseases of the stomach, published in 1855, makes no reference to this method of supplying nutritive material. The same is true of the treatise on *Digestion and its Derangements*, by Chambers, published in the same year. In Aitken's *Science and Practice of Medicine*, edition of 1864, nutritive enemata were advised in cases of obstruction of the œsophagus, but they are not mentioned as entering into the treatment of cancer of the stomach. They were advised in the latter affection, however, in the edition of 1871. Niemeyer, in his *Text-Book of Practical Medicine*, American edition of 1869, uses the following language in connection with the treatment of cancerous stric-

ture of the œsophagus:—"When there is inability to swallow, we may make the almost hopeless attempt to nourish the patient by enemata." He does not allude to this attempt in cases of ulcer or cancer of the stomach.

These citations are sufficient to show that by authors of works on the practice of medicine, or of treatises upon diseases of the digestive system, up to a recent date, alimentation had not been regarded as a very important measure in the treatment of affections which preclude either the ingestion of food or its digestion in the stomach and small intestines. Of late, however, interest in the subject is beginning to be awakened. It is, perhaps, not an exaggeration to say that, at the present moment, it is one of the most important of the subjects pertaining to practical medicine, which claim attention and further investigation. My object in this paper is to submit an account of a few cases which may contribute to our knowledge of the subject, and to offer some remarks in relation to it.

The tardiness in the recognition by the profession of the importance of the subject, has not been altogether from the want of cases, reported by trustworthy observers, showing the practicability of sustaining life for a considerable period wholly by means of rectal alimentation. A case was reported in the *American Journal of Medical Sciences* in 1852, by Dr. D. L. Pierce, of Pennsylvania, in which the patient, a young woman, with symptoms denoting gastric ulcer, was nourished by the rectum for three consecutive months. The nourishment consisted of good lamb or mutton broth, of which a pint was injected every three hours. At the end of this period food was tolerated by the stomach, without any return of the gastric symptoms, and two years afterward she was in excellent health. She gained in weight and strength during the time this treatment was pursued.

Dr. Purple, president of the New York Academy of Medicine, has kindly furnished me with the following report of a case which in certain respects is highly instructive. I may

state that the patient, a near relative of Dr. Purple, was under his constant observation, and the treatment was carried out with anxious solicitude:

“Mr. P., aged forty-one years, of spare habit, nervous-sanguine temperament and sedentary occupation, was suddenly seized about four o'clock of the morning of June 30, 1871, without previous indisposition, with a profuse hematemesis. The vomiting of blood was repeated some three or four times in the twenty-four hours for several days, until the patient became greatly exsanguinated. Under absolute rest in the recumbent posture, and light cooling regimen, and the internal administration of vegetable astringents, his recovery was, in four weeks, to all appearance complete.

“In the autumn and winter of 1876 he suffered considerably from gastralgia and prolonged digestion, attended with occasional attacks of vomiting food soon after eating: bowels constipated, to relieve which injections of cold water were used, and occasional saline cathartics. On the morning of the 18th of February, 1877, about the same hour as that on which the first attack occurred, he was again suddenly seized with severe hematemesis, which recurred at intervals of a few hours for seven days, until the exhaustion and exsanguination were of an alarming character. In this state Dr. Flint saw him. A copious enema of infusion of sulphate of magnesia and senna, for the purpose of emptying the rectum and colon, was ordered, after which three drachms of Squibb's fluid extract of ergot were administered per rectum; and from this time onward for near three weeks the patient was entirely nourished and supported by nutrient enemas, in quantity of from six to eight ounces, every four hours night and day, of strong beef and chicken broths. No medicine, nourishment, or drink, were allowed the patient by mouth. Occasionally, at bedtime, twenty-five or thirty drops of laudanum were added to the enema to promote sleep. The effect of the nutritious enemas was to produce composure and sleep. The thirst, which was greatly aggravated by the very warm weather, was much relieved by sponging the surface of the head, hands and arms in cool water.

“During the time in which the nutrient enemas were depended upon for the support of the patient, the stomach and bowels remained quiet and no vomiting or alvine evacuation occurred. The

secretion of the kidneys and skin were about normal in quantity and quality.

“Near the close of the third week, the patient was allowed to partake by mouth, at first sparingly, of cool milk, at intervals of three or four hours, when the nutrient enemata were given at longer intervals. On the fourth day a small semi-fluid evacuation from the bowels occurred, and which continued to recur every morning. The patient’s convalescence has been slow. No vomiting of blood has occurred since February last.” (Dated October, 1877.)

The instructive points in this case are, the restriction of the nutritive material to animal broths; the tolerance of these in considerable quantity with only the occasional addition of a few drops of laudanum to promote, not tolerance, but sleep; the absence of any evacuation from the bowels while the treatment was pursued, that is for nearly three weeks, and the spontaneous occurrence of evacuations several days after food was taken by the stomach, and the evacuations not large, showing that the aliment introduced into the rectum had been completely appropriated.

The following case is one of an extraordinary character in several points of view. I saw the patient in consultation with Dr. Charles Bliss, of this city. When I suggested to Dr. Bliss that he report the case, he stated, as a reason for not doing so, that the facts would not be credited, and he was reluctant to place himself in a position to be suspected of either wishing to deceive or of having been himself deceived. He furnished me with a written history of the case in January, 1874, and he has supplemented this with an account since that date. I have his consent to make abstracts of his two communications for this paper.

Mrs. B., aged thirty-five years, had a severe attack of hemorrhage from the bowels in March, 1871, which was preceded by the discharge from the rectum of nearly a quart of fetid pus. Prior to this time she had had repeatedly vomiting of bloody and purulent matter, with inability to retain any food

in her stomach for many consecutive days. The hemorrhage from the bowels continued for several days, the quantity generally being from two to four ounces daily, but on one day it was quite profuse. This was followed by persistent vomiting, which was excited by everything taken into the stomach, even a spoonful of water and small pieces of ice. Under these circumstances, injections of beef broth were resorted to. After a short time, "Liebig's extract of meat" was substituted for the beef broth. This was injected for several weeks with the addition of warm water, but early in June, 1871, milk instead of water was added. Two teaspoonfuls of the "extract," in a teacupful of milk, were injected after intervals of from three to five hours, together with sometimes a half or a whole teaspoonful of laudanum. The patient had been accustomed to take opiates freely. This treatment was continued until July 23, 1871, when another hemorrhage occurred, preceded as before by a discharge of fetid pus. It was then impossible to introduce into the rectum nutriment, and the stomach was intolerant of it, so that the patient became greatly exhausted from inanition. However, the hemorrhage ceased after a few days, and the treatment by nutritive enemata was resumed. In August, 1871, she had a third hemorrhage more profuse than in either of the preceding attacks.

It was at this time that I saw the patient with Dr. Bliss. The hemorrhage recurred at intervals until April 26, 1872, always preceded by a purulent discharge; but the amount of blood at each attack was diminished. Meanwhile she was nourished by the rectum. Her general condition improved, and, at the date just named, she was able to visit her sister at Yonkers, carrying with her the meat extract and her syringe, and depending on alimentation by the rectum. In July, 1872, she was able occasionally to take a little milk and lime-water into the stomach without exciting vomiting. During all this time blood and pus were now and then vomited. From that date up to the date of Dr. Bliss's communication, namely January, 1874, she was nourished chiefly by the stomach, and her

health had slowly improved. The patient had been subject to epileptic attacks from childhood. During the period embraced in the history just given, she had at times a discharge of pus from the umbilicus. Dr. Bliss concludes his communication, made in January, 1874, by saying:—"From the first week in March, 1871, until the last of June, 1872, I have no reasonable doubt that she subsisted solely on the injections."

I will add that there was nothing in the circumstances connected with this case to suggest the suspicion that the patient was desirous to be considered "an object of interest," or to deceive for any other reason.

In the second communication, dated October 1, 1877, Dr. Bliss gives an account of the case since the date of his previous communication in January, 1874. He states that the discharges of pus, with hemorrhage, from the rectum, and the purulent discharges from the navel, have recurred less frequently; but they have at times been as great as on the previous attacks. During the summer just passed, she has had repeatedly abscesses in the external auditory meatus. She has had occasional attacks of epilepsy. She has taken opiates occasionally to relieve irritability of the rectum. During all this period—namely, five years—she has much of the time depended on rectal alimentation; and she has steadily used the combination of meat extract and milk. From time to time she has been able to take into the stomach and retain milk, with cracker, toast and poached egg.

That this is a most remarkable case will be conceded. I shall not raise an inquiry as to the probable source or sources of the purulent discharges and the hemorrhages. With reference to alimentation by the rectum, it was wholly relied upon for a year and three months, and subsequently much of the time during five years. In this point of view the case is probably unique. Moreover, life was maintained by nutritive injections under circumstances which seemed to claim very efficient alimentary support. The restriction of the rectal diet to meat extract and milk, is an important fact in the history of the case.

In 1873, I saw with Professor James W. McLane, a young unmarried woman, much emaciated and extremely feeble, who had intolerance of food and other symptoms which were supposed to denote gastric ulcer. In order to give the stomach absolute rest, it was resolved to rely for a time entirely on nutritive injections. Prof. McLane has kindly furnished me with the following facts relating to this treatment:—Nourishment exclusively by the rectum was continued for twenty-eight days. The rectal diet consisted of beef tea, unsalted, egg and milk having been substituted only three times. To each injection were added a little brandy and ten drops of laudanum. The quantity of nutriment injected was from four to six ounces. The injections were repeated every four hours. After the first few days they were well tolerated, no portion of them being rejected. After the twenty-eighth day she was able to take food by the mouth in small quantity; but she was supported mainly, during the remainder of her life, by means of beef tea given by the rectum. She lived a year under this method of support. Prof. McLane states that her life was undoubtedly prolonged by rectal alimentation.

A case reported by Dr. Theodore Williams to the Medical Society of London, illustrates an important fact relating to rectal alimentation, namely, that there may be a considerable gain in the weight of the body during nourishment by this method. The patient having had daily recurrence of hæmatemesis for five weeks, had lost much flesh and strength. Associated with the hemorrhage were other symptoms which warranted the diagnosis of gastric ulcer. All food by the mouth was discontinued, and injections of beef tea, eggs and brandy, were given. After ten days all the gastric symptoms had subsided, and there was a gain in weight of several pounds. A slight relapse occurring, the nourishment by the rectum was again resumed, with prompt success, the patient making a rapid recovery and gaining in weight ten pounds while in hospital. Dr. Williams, in calling attention to the remarkable gain in weight while the patient was subsisting entirely on the

nutritive injections, adds:—"This fact shows that we possess in the rectum an effective second stomach, which, if it does not afford us the pleasures of digestion, spares us many of its pains."*

These cases furnish clinical proof of the sufficiency of nourishment introduced into the large intestine, for life to be maintained indefinitely; for improvement in cases of disease involving great exhaustion; for the satisfaction of the sense of the want of food, or hunger, and for an increase in the weight of the body. Taking these conclusions as a stand-point, I shall offer some remarks, and cite other cases, with reference to, *first*, the indications for rectal alimentation; *second*, the appropriate diet for the rectum; and, *third*, certain practical rules to be observed.

INDICATIONS FOR RECTAL ALIMENTATION.

In cases of disease seated in the œsophagus, at the cardiac orifice of the stomach and at the pylorus, involving sufficient obstruction to prevent adequate nutrition, it is a very obvious indication to nourish by the rectum. I can recall cases in my past experience in which, with our present knowledge of rectal alimentation, as there is reason to believe, life might thereby have been much prolonged and suffering alleviated. In a case of cancer of the œsophagus, occurring in the practice of Dr. Purple within the past year, suffering from a sense of hunger was removed, and probably death postponed, by nutritive injections. Recently, in a case treated by Dr. Varrick, of Jersey City, a stricture of the œsophagus occurred which was relieved by the use of bougies. Before this was accomplished, the patient, who was extremely feeble, would probably have died had he not been sustained by food introduced into the rectum. He was subsequently able to take very little aliment into the stomach, owing to an invincible anorexia probably connected with degeneration of the gastro-intestinal tubules,

* Lancet, October 24, 1874, and American Journal of Medical Sciences, January, 1875, page 271.

and, under these circumstances, life was apparently prolonged by a continuance of the nutritive injections.

As regards prolongation of life and recovery, of course, the success of rectal alimentation will depend greatly on the nature of the disease irrespective of the mechanical obstruction. In cases of carcinoma, the most frequent of the obstructive affections in these situations, recovery is not to be expected, and postponement of a fatal ending, for a greater or less period, is all that can be hoped for, beyond relief of the suffering incident to death by slow inanition. Such cases, it is evident, afford no criterion of the expectations and hopes which may be entertained when obstruction alone threatens life, and especially when the obstruction may be removed if only time can be gained.

In gastric ulcer, to sustain the patient wholly by the rectum, thereby securing for the stomach absolute rest, is not only fulfilling an important indication, but there is clinical proof that by this measure alone the disease is effectively treated. Twelve years ago I treated in this way a case in Bellevue Hospital, nourishing the patient exclusively by injections of the essence of beef and milk, repeated every four hours, for three weeks. The treatment would have been continued longer but for the irritability of the rectum. However, at the end of that period the stomach tolerated food, and the patient recovered. Dr. Balthaza Foster has reported several cases in which complete rest of the stomach, thus secured for a few days, was followed by speedy recovery.* Other cases have been reported in medical journals, showing the success of the treatment.

The treatment is indicated in cases of hematemesis (gastrorrhagia), whether the hemorrhage depend on gastric ulcer or not. The rationale is the complete functional rest of the stomach which the treatment secures.

On the principle that rest of the inflamed part is of primary importance in the treatment of all inflammatory affections, nourishment by the rectum is indicated in acute gastritis. In

* Clinical Medicine. Lectures and Essays. London, 1874.

a case recently occurring in the practice of Dr. Leale, nothing was introduced into the stomach for ten days. The patient was nourished by injections alternately of beef essence, chicken broth and milk, repeated every two hours. No form of opiate was added to the injections. After the first day or two, no dejection occurred during the remainder of the time that the nutritive injections were continued. The symptoms of gastric inflammation, under this treatment, disappeared; and the patient was so well satisfied with his rectal diet, and so apprehensive of the return of his gastric distress, that it was difficult to persuade him to return to alimentation by the mouth. When he consented to the change, the stomach was found to tolerate food without inconvenience. This case was seen by Dr. Purple and by me in consultation. Quite recently a case of acute gastritis caused by alcoholic excesses, in my service at Bellevue Hospital, was treated by nutritive injections, which, with a blister to the epigastrium, constituted the whole treatment. The gastric symptoms speedily diminished, and after a few days the patient was able to ingest food without inconvenience.

Persistent irritability of the stomach and almost complete intolerance of food,—a purely functional affection, occurring chiefly in women and especially in early life,—is an extremely rebellious malady, with which every physician of much experience is familiar. There is ground for the opinion that in these cases securing complete temporary rest of the stomach will be found to be the most effective plan of treatment. Within the past year I have met with two instances in which it has proved successful. One of the cases was in the practice of Professor Lusk, and the other was a patient of the late Professor Crosby. In the latter case Leube's meat solution, as prepared by Frederick Hoffman, apothecary and chemist, of this city, was used; and in the former case the form of rectal diet employed by Leube, which will be noticed presently. Prof. Lusk's patient was nourished by the rectum for seventeen days. During this time there was no apparent loss in

weight. Prof. Lusk states in a note kindly furnished, that during the greater part of this period "the stomach was unable to retain even a swallow of water, so that, in addition to the nutritive enemata, considerable quantities of water were introduced into the system by the bowel to allay thirst." He adds:—"I have had a number of similar cases since, but in all the irritability of the bowel has proved an insurmountable obstacle to prolonged treatment." In a recent hospital case of typhoid fever there was exceptionally constipation, and this was associated with great gastric irritability. The patient, under these circumstances, was nourished for two weeks by the rectum. During this period convalescence took place, and the patient was so well satisfied with the rectal alimentation that she was reluctant to begin to take food by the stomach.

Rectal alimentation is clearly indicated in the cases of invincible anorexia with progressive diminution of weight and strength, ending fatally from inanition, the cases occurring in persons of middle and advanced age, and the pathology, probably, involving degeneration of the gastro-intestinal tubules. I have not clinical data sufficient for forming an opinion in relation to the success of the measure in these cases. It is to be feared that the morbid conditions which underlie the inability to ingest food, and the defective ability to digest in the stomach and small intestine, will be found to prevent the digestion of aliment introduced into the rectum.

Finally, resource is to be had to rectal alimentation when, owing to blunted mental perceptions or coma, an adequate amount of food can not be introduced into the stomach by voluntary deglutition. If alimentation by the rectum will suffice, it is an easier method, under the circumstances, than the introduction of food into the stomach without the voluntary coöperation of the patient. And the rectal method of nourishment, if sufficient, is to be preferred to its forcible administration through the œsophagus in spite of the patient's resistance.

RECTAL DIET.

What kinds of aliment are best suited to form a rectal diet, is an important point of inquiry. With reference to this inquiry, I can not pass by the physiological question, how is digestion in the large intestine effected? From the failure to procure from the mucous membrane of the colon and rectum a digestive juice, and from experiments on lower animals, physiologists have been led to doubt the ability of these portions of the alimentary canal to perform the function of digestion. Yet, secreting glands analogous to those of Lieberkühn are found in considerable numbers in the large intestine, and it is not difficult to understand that they may take on a vicarious activity when the glands of the stomach and small intestine are not excited by the presence of ingesta. This supposition is not inconsistent with the absence of a digestive juice in the large intestine when digestion in the stomach and small intestine is not interrupted. Another supposition which I will venture to make, is that food introduced into the rectum excites secretion by the gastric and intestinal glands, and in the absence of ingesta in the stomach and small intestine, the fluids secreted by these glands pass into the large intestine in a sufficient quantity to effect digestion within the latter. Whatever may be the explanation, clinical experience fully establishes the fact that the digestion of animal broths, milk and eggs, takes place in the rectum without the addition of agents,—namely, pepsin and hydrochloric acid,—which are capable of effecting artificial digestion. This is not saying that these agents are not useful as conducive to digestion within the large intestine.

The articles of diet just named have generally been used in nourishing by the rectum. That they are adequate to the needs of assimilation and nutrition, is demonstrated by the cases which have been cited. Leube has proposed a form of rectal diet, called the “pancreatic meat emulsion,” which is prepared as follows:—From five to ten ounces of meat are chopped very finely, and one-third of this weight of finely

minced pancreas (of the pig or ox), free from fat, added. This mixture is then rubbed up in a mortar with five ounces of lukewarm water, being reduced to the consistency of thick soup. Leube's "meat solution" would seem to be not less appropriate as a diet for the rectum than for the stomach. This differs from his rectal food in having been exposed to the temperature of boiling water, in a Papin's digester, for over thirty hours, hydrochloric acid having been added, and afterward nearly neutralized by the carbonate of potassa.* This form of diet was used in the case which I saw with the late Prof. Crosby.

Leube's paper on nourishment by the rectum contains a number of experiments on dogs, proving that his "pancreatic meat emulsion" disappears from the rectum and is assimilated. These experiments are open to the criticism that the "dick-darm" of the dog may not be the analogue of the large intestine of man. Clinical experience, however, amply sustains the application of the results of these experiments to the human body. Leube assumes, at the outset, that milk, eggs and meat broths, are unsuited for rectal alimentation. In this he is in error, as shown conclusively by clinical experience. He errs also, probably, in thinking that there is not sufficient proof of the competency of the large intestine to take any efficient part in the digestive process; in other words, that the digestion which takes place in this situation is wholly artificial. His studies, although useful, are one-sided, inasmuch as they have for their object chiefly to substantiate the claims of the "pancreatic meat emulsion," which he seems to think

* The formula for the meat solution is as follows:—Take 1,000 grammes of beef, free from fat and bone, put into an earthen or porcelain jar, and add 1,000 C. C. of water and 20 C. C. of pure hydrochloric acid. Place the jar in a Papin's digester, screw the cover tight, and boil from ten to fifteen hours, stirring occasionally during the first few hours. Then remove the contents of the jar to a mortar, and rub the mass until it has the appearance of an emulsion. Boil again for fifteen or twenty hours without raising the cover of the digester. Add pure potassium carbonate until the mass is nearly neutralized, then evaporate to a pulpy consistence. Vide American edition of Ziemssen's *Cyclopædia*, Vol. XII, note before table of contents. This article is prepared by F. Hoffman, 797 Sixth Avenue, New York City.

should exclude other forms of rectal diet. It is a rational supposition that what is true of digestion in the stomach and small intestine, is true also of digestion in the large intestine, namely, a varied diet is better than the persistent use of the same kind of food prepared in precisely the same way; in other words, the alternation of different kinds of food may be of importance. Reasoning by analogy, it is probable that the addition of agents which are found to promote the digestive process in the stomach, and which are capable of effecting digestion out of the body, may be advantageously added to the rectal diet. I refer especially to pepsin and the hydrochloric acid. Concerning these and other points relating to rectal diet, the results of further clinical experience are desirable. If some enthusiastic physician or medical student were to submit himself to a series of well devised, carefully conducted experiments, he might hope thereby to furnish valuable practical information bearing on this important topic.

Thus far, in the cases which I have had the opportunity of observing, the articles of diet employed have been the "meat solution," and the "pancreatic meat emulsion" of Leube, "Liebig's extract of meat," with milk, milk either alone or combined with egg, beef, mutton and chicken broths. These varieties have severally proved satisfactory, but it is desirable to determine more accurately than our present knowledge enables us to do, the combinations and variations which render rectal alimentation more effective, and also whether the range of rectal diet may not with advantage be extended. The basis of increased knowledge in these regards must be, not theoretical considerations, nor the results of experiments on inferior animals, but experimental observations, in health and disease, on the human subject.

PRACTICAL RULES IN RECTAL ALIMENTATION.

Practical rules based on our present knowledge of rectal alimentation, will doubtless receive important additions and modifications from experimentation and further clinical experience. In the cases which have come under my observation,

the nutritive injections have generally not been carried above the rectum. It is easy to introduce a flexible tube, and inject nutriment into the colon. From half a pint to a pint of milk was in this way frequently injected in a case which I saw many times with Dr. Linsly and Dr. Ellsworth Eliot, the patient being an aged man suffering from a complication of exhausting maladies, and either unable or unwilling to take by the mouth an adequate amount of food. These injections were retained, causing no inconvenience, and apparently contributing to alimentary support. It remains for clinical experience to determine whether this method has not decided advantages.

Introduced into the rectum, the quantity at each injection should not, as a rule, be large. From three to six ounces may be stated as the average quantity. The intervals between the injections should be from three to six hours. In the case seen with Dr. Leale, they were tolerated without inconvenience every two hours. If not well tolerated, a few drops of laudanum, or a drachm of the United States solution of morphia, may be added to each injection. This is not necessary in all cases. It is a point to be settled by experience whether the addition of an opiate impairs the activity of digestion in the large intestine; in other words, whether opium has the effect here which it has upon stomach digestion. Prior to commencing rectal alimentation, the contents of the large intestine should be removed by simple enemas, and, if not contraindicated by the feebleness of the patient, an efficient laxative should be given by the mouth. The nutritive injections sometimes provoke fecal evacuations at first, owing to the contents of the large intestine not having been entirely discharged, and afterward they are retained, no evacuation taking place for days or weeks, without any uncomfortable sense of accumulation. The latter fact was strikingly illustrated in the case reported by Dr. Purple, and also that seen with Dr. Leale. As a substitute for drink, when the need for more liquid than that contained in the nutritive injections is expressed by thirst, and when water or pieces of

ice are to be withheld from the stomach, simple water may be injected, and sponging freely the surface of the body, is a means of the introduction of liquid. In Dr. Purple's case, thirst was relieved by this means. If alcoholics be indicated, they may be either added to the nutritive injections, or properly diluted and injected separately. Alcoholics administered by the rectum are not, perhaps, open to the moral objections sometimes made to their use *per orem*. The addition of a little brandy or whisky does not appear to impair the ability to retain the injections. If, however, it should seem to be otherwise, alcoholics, if indicated, may be introduced hypodermically.

It happens not infrequently that nutritive injections at first are not retained, and they are discontinued in consequence. If persisted in, however, they may, after a short time, be well tolerated. As Leube says, the rectum seems to acquire the ability to retain nourishment. On the other hand, the injections are first retained in some cases, but after a time the rectum becomes intolerant of them. When the latter happens, it is advisable to discontinue them for a day, and, after this brief period of rest, the ability to retain them may be regained.

It is certainly not necessary in all cases, as advised by Foster and others, to wash out the rectum by a simple enema before each nutritive injection. So far as my experience goes, this requirement is the exception rather than the rule. I have at this time under observation a case of long protracted functional anorexia and vomiting with great prostration, in which for many weeks the alimentation has been, for the most part, rectal. In this case, for two weeks or longer, no dejection has occurred, without any inconvenience from constipation, nutritive enemata being almost invariably retained. I may add that in this case improvement has been slowly progressive, and for the past week enough food has been retained by the stomach to render rectal alimentation unnecessary. During this week free evacuations from the bowels have taken place.

The nutritive injections should be tepid, that is neither hot nor cold. Directly after their administration, firm pressure should be made, by means of a sponge or napkin, upon the anus until the desire for their expulsion passes away.

Evidence that the rectal diet is sufficient in quantity and suitable in kind, is afforded by the feelings of the patient. If the injections meet the requirements for alimentation, they are followed by a sensation of comfort, such as is experienced after a satisfactory meal ingested in the ordinary way. In the case reported by Dr. Purple, the patient described the effect of each injection as fully satisfying the desire for food, and conducive to pleasant sleep. It is a striking fact that in several of the cases which I have observed, the complete satisfaction derived from alimentation by the rectum, has produced, not merely indifference, but a disinclination toward stomach digestion.

In conclusion, if the cases and remarks submitted in this paper have contributed but little to our knowledge of rectal alimentation, I trust they may be of some service in directing attention to the importance of the subject.

NEW YORK CITY.

MALARIA AND STRUMA IN THEIR RELATION TO THE ETIOLOGY OF SKIN DISEASES.*

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Mr. President and Gentlemen:

The opinions held by your reporter, on the etiology of dermal lesions, are already known to most of the members of the association, and, so far as my knowledge extends, are shared by none. It is for the purpose of bringing these views before

* Read before the American Dermatological Association, at Niagara Falls, September, 1877.

you somewhat more elaborately, and in the hope of impressing you with their correctness and importance, that I am with you to-day.

The very imperfect and unsatisfactory state of this branch of dermatology—*i. e.*, its etiology—as compared to the anatomy, physiology, and pathology of the subject, must have impressed itself upon all; and if I am enabled to throw light on the etiology, I shall thereby make clearer the therapeutics of the science for whose advancement we are assembled.

In the beginning let me say, that the etiological doctrines of this report are the result of clinical observation and experience, not of theory and speculation; and it is my belief that from the sick and not from the laboratory, from experimental therapeutics and not from the microscope, our practical medical knowledge is destined to come.

The skin, though differing distinctly in feature and function from the other tissues, is yet composed of similar materials chemically, and is nourished and governed by the same blood and nervous fluid common to all. Therefore, it is rational to suppose that the same influences which produce disease elsewhere produce disease in it; and in dermatological investigation, we should interrogate the complaining organ with reference to the poisons—animal, vegetable, mineral, aqueous, aerial—and to heat, cold, ingesta, functional abuse, traumatism, the heredities, and any other source of disease known to exist.

Excluding the exanthemata, each of which has a special cause, and for none of which have we yet discovered prophylactic or remedy, save only variola and syphilis, and excluding also the parasitic diseases, I hold that in malaria we find the chief source of acute skin disease, and that to scrofula most of the chronic skin diseases may be traced; and that the more inveterate examples of either class are commonly due to a coëxistence of these two causes. And, furthermore, that the favorable or unfavorable course and termination even of the exanthemata are largely influenced by the presence or absence of scrofula and malaria in the patients.

By the word malaria—literally signifying bad air—I need scarcely say that I mean what is otherwise denominated marsh miasm. The former is the preferable name, because of its brevity, its universal currency, and because of the bad pre-eminence of this bad air. Marsh miasm is an unfortunate term, which has done much to mislead the profession as well as the people. This is evidenced by the fact that we very often hear the presence of malaria denied, on the ground that no marsh or swamp, lagune or pond, is adjacent to the accused locality; whereas we know that no fact in medicine is more firmly established than that malaria may arise without these things. In the rich oases of the Sahara desert, and on the sides of the Rocky Mountains, this mysterious poison exerts its baleful influence. Dr. Dickson says, in his *Elements of Medicine*, speaking of malarial fevers: “We find these fevers on the cold fens of Holland and Lincolnshire, as well as on the rich rice-fields of the sunny south; on the smiling hills which overlook the Hudson, as well as among the swamps and marshes; on the lime-rock of Kentucky and Tennessee, the clay of Alabama and South Carolina, the sandy barrens of her northern sister, and the granite and sienite of the Empire State; on the volcanic tufa of Civita Castellano and the Roman campagna, and in the very crater and on the sides of extinct volcanoes, as at Balsina and Milo.”

Hertz, in Ziemssen's *Cyclopædia*, quoting, I presume, from Humboldt, after stating that these fevers may originate on a dry soil and in mountainous regions, says:—“On the Tuscan Apennines at a height of eleven hundred feet, on the Pyrenees at five thousand feet, on the island of Ceylon at six thousand five hundred feet, and in Peru at an elevation of ten thousand to eleven thousand feet, malaria is found.” According to the same author, malaria, though most frequently developed in summer, may originate in mild winters; and, in my own experience, I have encountered intermittents which certainly had been produced in winter time. Hertz also asserts, what I believe is universally acknowledged, that an average summer temperature of fifty-nine to fifty-nine and

eight-tenths Fahrenheit, which is sufficient to induce vegetable decomposition, produces malarial fever. It is also perfectly established that malaria may spring from meadows, from the clearing of forests, from reservoirs, great lakes, mill-ponds, sluggish streams, bilge water, and the water carried for drinking purposes on ships. The turning up of the soil, as in plowing and ditching, and in the construction of fortifications, is a well known cause of malaria.

As to the nature of the poison in question, it would be a waste of time to consider the various suggestions that have been put forth about it, as that it is a sulphurous or saline vapor, carbonic acid, hydrosulphuretted or hydrocarburetted or hydrophosphoretted gas, exhalations from volcanic soil, or ozone or azote, or may depend upon diminished atmospheric elasticity, electricity, or may be an exhalation of living as well as of decaying plants; or that which is taken for malaria may be caused by heat, atmospherical moisture, vicissitudes of temperature, or sulphuret of iron in the soil, or may be animalculæ or vegetable organisms, or may be the result of absence of animal quinia or taurine in the blood, or from a deranged liver; or finally may be caused by the influence of the dog-star, as was once believed.

Pathological evidences of malarial origin of acute skin diseases.—In numerous instances these evidences are patent even to the superficial observer, and may be perceived in the pale, enlarged, flabby and teeth-indented tongue, in the anæmic or muddy complexion, and in distinct malarial periodicity. I say malarial periodicity, because we have scrofulous periodicity as well as periodicity in diseases neither malarial nor scrofulous. Indeed, periodicity is a habit, not alone of disease but of health, not alone in the human system but as well in the aqueous and atmospheric oceans, the heavenly bodies, and even it is asserted of the convulsions of nature.

In a large proportion of cases, however, it is only by patient, careful, and minute inquiry and investigation, that we are able to detect the malarial element. Prolonged malarial

disease may exist without any apparent anæmia or pigmentary discoloration, though the opposite is the rule.

The cutaneous lesion may be more pronounced at a certain period of the day, or on certain days, in its color or in the sensations of heat, pruritus or pain, or its secretion may be periodically augmented. Again, the eruption may evince no periodicity, but some organ or function of the body will do so, and the treatment which cures the one removes the other. Furthermore, though no form of periodicity be discernible, yet the antiperiodics will cure these diseases with more certainty than any other medicines, and also more promptly.

These facts I verify daily in my private and dispensary practice in Louisville. In the inmates of hospitals and in private individuals, in New York and Philadelphia, and in Boston and its vicinity, as well as in the southern cities, I have been enabled to distinctly recognize the marks of malarial poison; of course in a milder form in the north than the south. It can not be denied that in all the northern states the summer heat is sufficient every season to develop malaria, though it be less universal in extent and of a less intense form than in the southern states. Your lakes, fish-ponds, mill-ponds, canals, reservoirs and rivers, are all sources of malarial poison. In all the cities above enumerated you have the commingling of salt and fresh water in the mouths of your rivers, and than this there is no more certain nor universally admitted source of malaria. In addition to all this, in all these cities and in all other cities with which I am acquainted, there are wooden pavements, and these, rotting under the combined influence of the summer's sun and the water sprinkled daily on them to lay the dust, may be foci of the potent and insidious miasm.

Another exceedingly important circumstance to remember, and one so far as I am aware not hitherto pointed out, is that all malarial manifestations are not accompanied by elevation of the temperature of the body or acceleration of the pulse. Hence the term "masked intermittent fever" is not always strictly correct, as applied to cutaneous, intestinal, uterine,

neurotic, and other maladies, in which malarial *periodicity* is oftentimes a feature. In other words, we may have malarial intermittent affections without any sign of fever. This is most common in the less intensely malarial districts. The febrile feature of malaria is most prevalent in the more intensely malarial regions.

Therapeutical evidences of the malarial origin of acute skin disease.—Antiperiodics, properly administered, yield the surest and speediest results in far the greater number of acute skin diseases. At the head of malarial antiperiodics stand quinia and the other alkaloids of Peruvian bark, and next stands arsenic. Iron in skin diseases, as in all others, is almost indispensable to perfect their cure. Any of the remedies which may relieve intermittent fever, and they are almost innumerable, may cure malarial skin diseases. Furthermore, malarial diseases, of whatever form, will sometimes get well without medicine. The time of the administration of the Peruvian bark salts is, according to my experience, of the first importance. They should never be given during, or immediately preceding or immediately subsequent to, a malarial manifestation, whether this come in the shape of a chill, a neuralgia, a diarrhœa, a cough, or a skin eruption. They should be administered to the extent of fifteen or twenty grains, or more if need be, of quinia, or twenty to thirty or more grains of cinchonia, cinchonidia, cinchonix, etc., in divided doses. The first dose should be given not more than eight hours before the paroxysm, and the last not less than two hours preceding the expected paroxysm or exacerbation.

An imperfect list of the dermatoses which may be developed by malaria.—Acne simplex, acne rosacea, the erythemata, urticaria, eczema, all the forms of herpes, the acute lichens, prurigo, impetigo, miliaria rubra, ecthyma, acute pityriasis; the furunculous affections, and under this head I include boils, carbuncles, felons, malignant pustules, and erysipelas; also elephantiasis græcorum, pellagra, dermal anæsthesia, dermalgia, dermal hyperæsthesia, anidrosis, bromidrosis, hyperidrosis, chloasma.

The malarial poison alone may develop cutaneous disease, and again it may require a traumatism, an indiscretion in diet, a wetting, extraordinary heat or cold, a sudden change of atmosphere or clothing, loss of sleep, or some such thing in addition, to call forth the eruption. The performance of the natural functions, as parturition, menstruation and dentition, for instance, in persons predisposed to malarial disease, or having within them latent malaria, oftentimes excites the skin eruption.

With the mention of two additional facts which impress me as strong evidences of the correctness of my doctrine, I conclude this branch of the subject:

First. Negroes are far less subject to malarial poison than white persons, and they are remarkably exempt from most of the skin diseases just now enumerated.

Second. In India, during the height of the mango season, a severe form of furuncles is prone to occur, and these are called "mango boils," under the impression that eating this fruit produces them. Now, the mango ripens during the early portion of the rainy season, at which time malaria is most rife and virulent, owing probably to the rotting of the luxuriant tropical vegetation drowned by the water. The profuse rains soon wash off this decaying material into the streams, which carry it to the sea and also cool the atmosphere, and with these results there occurs a subsidence of the malarial fevers and the mango boils. This fact in regard to the mango boil was furnished me by a very intelligent and cultivated Anglo-Indian, some twelve months since, to whom I had communicated my views on malaria.

I now come to the second branch of the subject.

Scrofula in Dermatology.—Both the profession and the public are likely to obstinately combat, and indeed to resent, the idea of the scrofulous origin of skin disease, for the reason that scrofula is universally considered a vulgar and disreputable disease, and no one likes to acknowledge its existence either in his person or in his family. My time will not admit of the consideration of the nature of scrofula at any length

on this occasion. I believe it to be a disease of nutrition leading usually to the deposit of tuberculous matter. It affects all portions of the system. In the lungs it is called consumption, and in the glands and bones it is called scrofula. It is found in all races and climates, and no age is entirely exempt from it. It is both hereditary and acquirable. It may remain latent in the system of an individual for an indefinite period of years, and indeed it may not only remain latent in the system of an individual, but even for a generation or more, and may then be brought into active existence by some disease or injury, or by the performance of a natural function, as of dentition, menstruation, parturition, or the like. It is immensely the most prolific of all the sources of human death. It not only kills of itself, but often determines the course and the termination of other diseases.

But few physicians even I am persuaded have a just conception of the extended prevalence of scrofula. According to Sir James Simpson, this disease carries off seventy thousand persons annually in Great Britain, in a population of thirty millions, which is two thousand and a third to every million; and it is fair to estimate that this calculation only embraces the frank, well-defined cases, and does not include numerous deaths from obscure forms of scrofula. Lawrence, in his work on the eye, quotes Beer as follows:—“*Nine-tenths of the ophthalmia in Vienna in children is scrofulous.*” In Breslau it is greater, according to Benedict, the proportion being *ninety-five per cent.*; and “*not a single family in Scotland is free from scrofula,*” according to Dr. Gregory, of Edinburgh. Dr. John Thompson, in his lectures on inflammation, says:—“*It is rare to meet with an individual who has not, at some period of his life, experienced disease in some shape or another belonging to one of the several forms of scrofula.*” The latter quotations are from Lawrence’s work.

In our own country, scrofula, though exceedingly prevalent, and killing more people than any other disease, is far less frequent, I am satisfied from personal observation, than it is in Europe. It is safe to attribute this to the superior abundance

of our food and to the abundance of meat especially, and to the better ventilation of the houses of our masses. It may be that the commingling of blood of the many nations from which our population springs also exerts a beneficent influence. So much for the exceeding prevalence of scrofula; and no sound reason can be given why, if it be so abundant in the human system, the skin may not be its frequent seat.

The evidences of the scrofulous diathesis are easily discoverable in the language of the body of a very large proportion of persons coming under observation of the physician; but it is not necessary to enumerate here the signs of scrofula.

The following diseases of the skin are certainly due to scrofula:—Lupus, psoriasis, ichthyosis, scleroderma.

The next following I believe to be due to the scrofulous diathesis:—Molluscum fibrosum, chronic lichen, lentigo, veruca, albinism, scleroderma, keloid, nævus, pemphigus, and pityriasis.

The following diseases are oftenest found in the scrofulous diathesis:—The more obstinate and severer forms of true acne, acne rosacea, impetigo contagiosum, herpes zoster, pemphigus, nonscorbutic purpura, vitiligo, favus, and the other vegetable parasites of the skin.

The foregoing is of course only a very imperfect list, but I trust it is sufficient to convey my meaning.

Therapeutical proof of scrofula.—In the scrofuloderma, as well as in all forms of scrofulous disease, our therapeutical measures are sometimes of little or no avail. In psoriasis, ichthyosis and lupus, however, I have found the antiscrofulous remedies, the constructive remedies, such as cod-liver oil, syrup of the hypophosphites, syrup of iodide of iron, malt, etc., extremely reliable. This line of treatment has given me results the most satisfactory; under it these diseases are curable, and under no other are they with any degree of certainty according to my experience.

Thus briefly are the views on malaria and struma, in their relation to the cutaneous lesions, which have forced themselves upon my mind during twenty years of clinical observa-

tion. It is something more than ten years since I became especially interested in the study of skin diseases; but I must confess that their cure was most uncertain, and their management most unsatisfactory, until I learned to treat them with reference to their causes, having first learned from clinical study that they originated in the same causes which produced the other forms of disease.

In conclusion, I respectfully ask of the members of this association a fair, careful, and critical investigation of this most important subject.

SEPTEMBER, 1877.

NOTE.—After the reading of the foregoing report, Dr. Bulkley, of New York, moved that a committee be appointed to investigate the subject clinically, and to report at the next meeting.

Dr. Heitzmann, of New York, opposed such action on the ground that the doctrine was an old one, having been brought forward by a Hungarian physician, Dr. Poor, ten years ago, and having been disproved in Hebra's clinic. This Hungarian claimed, Dr. Heitzmann said, that *all* acute skin diseases originated in malaria, and *all* chronic skin diseases originated in scrofula. Dr. Heitzmann further declared that there is no malaria in Vienna.

Dr. White, president of the association, stated that malaria is unknown in Boston.

Dr. Bulkley, of New York, said that the malarial element was of little or no account in the skin diseases in New York; and none of the fourteen members present were inclined to accept my views.

The action of my colleagues of the American Dermatological Association was not unexpected by me; indeed, it was perfectly natural under the circumstances. Men of science should be slow to embrace new ideas, and no doctrine deserves to receive credence until it has been rigorously investigated. All that I ask is an unprejudiced clinical examination of this subject by the profession. If my opinions are cor-

rect, then I have brought most valuable truths to light; if my opinions are wrong, then the etiology of the skin diseases only remains in its former obscurity. The statement of Dr. Heitzmann that my views are old, and that a Dr. Poor, of Hungary, had announced the same doctrine ten years ago in Germany, was news to the other members of the association as it was to me. I had believed myself the discoverer of the important facts concerning the causes and treatment of skin diseases which I have been teaching for five years. The truth of the ideas in question, however, and not the priority of their discovery, is what we are all interested in.

Drs. White and Bulkley and Heitzmann are gentlemen of learning and distinction in dermatology, and I justly appreciate the weight of their opinions; but when they assert that there is no malaria in Boston, New York City and Vienna, I must venture to take issue with them, for I have myself seen the evidences of the malarial poison in all these cities, and the conditions productive of malaria assuredly exist both about and in these cities. That the distinguished gentlemen whom I have just mentioned have not observed the evidences of malaria is but negative testimony. After my report was completed, I had the good fortune to become possessed of McCullough on Malaria, published in 1829, and in this most valuable and interesting work I find recorded many facts which I had already learned in practice, and thought were discoveries of my own. I commend McCullough on Malaria to all who are interested in this momentous question.

From the criticisms which have been made on my views, I find that I have not succeeded in making myself perfectly understood. What I have contended for, and what I have reiterated, is simply this:—*Malaria is the chief source of acute skin disease. Scrofula is the chief source of chronic skin disease. The more inveterate cases of skin disease are often due to the coëxistence of these two things.* The specific exanthems, of course, are not included here, but I contend that *their progress and termination are often largely influenced by the presence of malaria or struma.* I do not claim that mala-

ria or struma are the *sole* causes which produce the dermatoses. Indeed, many of the dermatoses may exist independently of malaria or struma, and most frequently some exciting cause is necessary to develop the cutaneous eruption. Among the exciting causes are irritants, injuries, insufficient or improper ingesta, vicissitudes of temperature, alcohol, dentition, menstruation, parturition, lactation, etc. The proofs of the truth of my views are, in the first place, that the diseases of the skin are cured more certainly and more quickly by the antistrumous remedies on the one hand, and by the antimalarial on the other, than can be done by any other line of therapeutics; and in the second place, that careful and painstaking investigation will, in the majority of dermatoses, make apparent the existence of the malaria or the struma as the case may be.

It is a very great, though a very prevalent error, to deny the presence of malaria in every region where intermittent fever is not found. "Malaria does not necessarily produce intermittent; as the pure and simple original ague is rare in many of the most pestiferous portions of Europe; yet no one doubts its existence in those countries." (McCullough.)

In this city, Louisville, in its earlier history, remittent was a most frequent and a very fatal form of fever; now, it is exceedingly rare and never severe or fatal. Pernicious intermittent was once a not uncommon malarial manifestation in this region; now it is almost, if not entirely, unheard of. Shaking agues, genuine chills, were twenty years ago even excessively common, and now-a-days dumb chills or other "masked intermittents" have nearly entirely superseded them. Malaria is beyond question most virulent and rife in the warmer regions of our country; but except possibly in exceedingly circumscribed localities, it will be found to exist from land's end to land's end, and in similar climates in other countries the same I am convinced is equally true.

The ancients were well acquainted with malaria. "Those in Greece who rescued marsh-lands to cultivation were exempted from all taxes and public services; and the very fable

of the Lernœan Hydra and the deeds of Hercules, is but the poetical record of a successful operation of this nature." (McCullough.)

In conclusion, I desire to impress upon the reader that my views are not confined to the skin diseases. What produces disease here will produce it in all the other organs of the body. What is true of dermatology is equally true of gynecology and ophthalmology and otology, and it is just as true of the diseases of all the other regions of the body. Acute leucorrhœa, amenorrhœa and dysmenorrhœa, the acute ophthalmias and otitis, acute cough, neuralgias, diarrhœas and dysenteries, for example, are, according to my experience, more often directly or indirectly caused by malaria than any other cause, and are most satisfactorily managed by quinia and iron.

A general practitioner of medicine myself, I appeal to the general practitioners in the country and in the cities to give these matters careful thought and patient investigation. Bear in mind how little the mere statement of a patient is worth. Interrogate all his organs and functions, and compare his tongue and skin, and expression and pulse, and discharges and sensations, with his assertions; and iterate and reiterate your questions until you are confident the patient is not intentionally or unintentionally deceiving you. Oftentimes your client will assure you that he has no chill or fever, no time of particular drowsiness or irritability, or depression or languor, or thirst or pain, or itching or cough or diarrhœa, and so on; and yet you will find, after profuse questioning, that he has not stated the fact, and that he has some periodical symptom. No figure could so perfectly typify malaria as does the hydra. Its forms, like the hydra's heads, are almost innumerable. Different writers differently estimate the number of heads possessed by the fabled hydra, and so do medical men differ as to the number of forms taken by malaria.

I trust the repetition indulged in in this note may be pardoned, because of its seeming necessity in order to impress my meaning more distinctly.

VERATRUM VIRIDE IN PUERPERAL CONVULSIONS.

BY S. S. BOYD, M. D.

Two years ago I read a paper before the State Medical Society on the treatment of puerperal convulsions with veratrum viride. The paper was sharply criticized by several members of the society, who thought the treatment too hazardous for general adoption by the profession. As Dr. Fearn, of Brooklyn, New York, had treated ten cases successfully by the same remedy, and my two cases then reported had recovered, I was not discouraged by the unfavorable reception of my paper, but resolved then, if another opportunity occurred, to further test the efficacy of veratrum viride in puerperal convulsions.

August 25, 1877, I was called in consultation to see Mrs. T., primipara, a robust-looking woman, who usually enjoyed good health. I arrived about noon, and found Dr. William Van Nuys, the attending physician, present, who informed me that the patient had been in labor about six hours. The head of the child was pressing against the soft parts, the doctor having used the forceps previously to my arrival, but had removed them, thinking the expulsive efforts of the uterus would be competent to complete the labor after the head had passed the superior strait. In changing the patient from off her back to her face downward position, nature seemed to come to our relief in one strong continuous pain, by which the child, a ten pound boy, was born. This was about half an hour after I first saw the patient. The placenta was removed in about ten minutes, followed by considerable, though not excessive, hemorrhage. By the ordinary external manipulations of the uterus, it contracted firmly, when a bandage was applied.

Before my arrival, as Dr. Van Nuys informed me, the patient had three convulsions continuing from five to seven minutes, at intervals of about one hour and fifteen minutes. She

had no pain in the head, and was entirely rational between the paroxysms.

About half an hour after the child was born, and while the attending physician and I were consulting as to the probabilities of a return of the convulsions, we were called into her room to see her have another "fit," the fourth and last, which continued about five minutes. As soon as she was sufficiently conscious to swallow (but a few minutes), we administered twenty drops of fluid extract of veratrum viride, and repeated the dose every fifteen minutes until she had taken one hundred and twenty drops. When we gave the sixth dose, the pulse had fallen from one hundred and forty-four to one hundred and thirty. Ten minutes after this dose was taken the patient vomited nearly a pint of tenacious mucus, colored by the veratrum. Within ten minutes after the emesis began, the pulse fell to fifty-four per minute. After she had vomited three times in quick succession, we gave her twenty-five drops of tincture of opium, and repeated the dose every time she vomited, which occurred at short intervals at first, but after administering the fourth dose of tincture of opium she ceased to vomit, and fell into a quiet sleep. We left the patient at five o'clock in the evening in a comfortable condition, her pulse being sixty per minute. Instructions were left that if the pulse rose above eighty to give eight drops of the veratrum viride every hour, until the pulse fell below eighty beats per minute.

On the third day afterward I received the following highly gratifying letter from Dr. W. Van Nuys:

LEWISVILLE, IND., August 27, 1877.

DR. BOYD—*Dear Sir:* I will give you a brief report of the condition of our patient since you saw her.

I was not sent for to see her on Saturday night (the night after we left her). Saw her on Sunday morning at eight o'clock. Found her very comfortable; pulse had risen once during the night to eighty-four, but one dose of veratrum brought it down without producing nausea; no tincture of opium was given; had no symp-

toms of convulsions; pulse seventy-two per minute this morning. I drew off the urine with a catheter.

I saw her again this (Monday) morning at nine o'clock. Found her doing well. One dose of veratrum had been given during Sunday night. Pulse this morning eighty per minute. No headache or fever. Passed urine during the night and this morning. I ordered a dose of castor oil, to be followed by a powder, every six hours, of cinchonidia; discontinued veratrum entirely; everything indicates that she is going to do well.

I am well satisfied that the treatment to which Mrs. T. was subjected has been eminently successful, and, as I believe, saved her life. I can bear testimony to the safety and efficiency of this plan of medication in such cases, though seemingly heroic and hazardous. I shall adopt it without hesitancy should I meet with another case of puerperal convulsions.

WILLIAM VAN NUYS, M. D.

The exact change which is wrought in the system by which veratrum viride relieves puerperal convulsions, is not known, perhaps. But if no medicines were given unless the prescriber understands all the therapeutic action of the prescription, there would be little medicine administered. As, however, veratrum viride is one of the most powerful arterial and spinal depressants known in our materia medica, it is safe to guess at least that it effects a cure of convulsions by its depressing influence on both the heart and spinal column, including the medulla oblongata. This view of the therapeutic action of veratrum viride in this disease is supported by the belief that eclampsia does not have its origin in lesions of the brain, but is produced by reflex action originating in the uterus, from which, through the nerves of incidence, an impression is carried to the spinal column and to the medulla oblongata, and thence radiates to the whole voluntary muscles, and implicating even the muscles of respiration, extending also to the involuntary muscles of the heart and uterus.

The time may come, as I believe it will, when veratrum viride will be considered little more hazardous to administer than ipecacuanha, and less dangerous than lobelia inflata; then, and not until then perhaps, will the profession discard blood-

letting in puerperal convulsions, and adopt in its stead veratrum viride. As we have in opium such a reliable antidote to the unpleasant effects of veratrum, I think we ought, even now, to adopt the new and abandon the old practice.

After having read the above paper before a meeting of the District Medical Society of Eastern Indiana, I received a letter from Dr. Mary F. Thomas, of Richmond, who, with Dr. J. R. Weist, successfully treated a case of puerperal convulsion with veratrum viride. They administered one hundred and forty drops of the tincture, in fifteen drop doses every fifteen minutes, before vomiting occurred and the convulsions ceased.

DUBLIN, IND.

CENTRAL RUPTURE OF THE PERINEUM.

BY J. K. BIGELOW, M. D.

October 4, 1877, I was called to Mrs. N., eighteen years of age, then in the first stage of her first labor. Upon digital examination I found the os dilated to the size of a silver quarter of a dollar, a vertex presentation and first position. Three or four hours after this examination the liquor amnii was discharged, and the occiput was at the vulval orifice. I was at once struck with the very great extension of the perineum, for with the thumb at the anus I could just touch with the index finger the fourchette, measuring thus six or seven inches. The perineum thus prolonged was tense and thin, and I gave chloroform freely by inhalation with the hope of producing relaxation of it, as well as to relieve the severe sufferings of the patient. The chloroform lessened the suffering and the expulsive efforts, but did not the perineal resistance. For three hours more the labor continued, the vulval opening remained an inch in its transverse, and two inches in its

antero-posterior diameter. Finding the head during a pain pressing most strongly against the center of the perineum, I introduced my finger, in the absence of a pain, between the perineum and the head, when a sudden and strong contraction with expulsive effort occurred, at once forcing the finger through the perineum, immediately followed by the fetus. There was central rupture of the perineum, the sphincter ani not in the least involved, and the anterior boundary of the opening consisting of a band about the thickness of ordinary whip-cord. This band I divided, used carbolic acid dressing for the wound, had the patient's hips fixed by a bandage, and she has recovered most satisfactorily with a perineum measuring one inch and three-quarters.

INDIANAPOLIS.

REMARKS.—Cases of central rupture of the perineum with what has been termed perineal delivery, are by no means frequent, and hence we shall make a few references to some cases similar to the one reported by Dr. Bigelow, after briefly referring to the apparent cause of the accident in his case.

In the Clinical Lectures of Dupuytren,* one of them is devoted to central rupture of the perineum. In this lecture he observes, referring to the etiology of the lesion, that in some women the perineum is prolonged up so far that a fourth, or a third, or sometimes even one-half, of the vulval orifice is occluded. And, by the way, he mentions that this vicious conformation is sometimes so great sexual intercourse is impossible until the orifice is enlarged with a bistoury: undoubtedly we have thus explained, as has in recent years been pointed out by Debout and others, one of the causes of vaginismus.

Dupuytren remarks that this conformation is sometimes congenital, sometimes acquired, that is the result of the union of the soft parts following a burn, or a rent resulting from an anterior accouchement, of wounds of any sort. He gives two illustrations of the acquired variety, one of which we shall

* *Leçons Orales de Clinique Chirurgicale.* Paris, 1833.

present: A young lady had a weakness, but she had in return such ability that she completely concealed her pregnancy, and such courage that she was delivered alone. The labor was most difficult, and caused vast rents of the labia and of the perineum. The healing of these wounds took place but too completely, for the vulval orifice became so contracted the little finger could scarcely be introduced. The young lady married, and intercourse being impossible it was necessary to send for a surgeon, whom she admitted to her confidence. Great was the husband's joy, who saw in this organic disposition a certain gage *des prémices* of his wife!

In the history Dr. Bigelow has given, we have very clearly presented the fact of an unusual prolongation of the perineum with smallness of the orifice of the vagina, such as described by the great French surgeon more than forty years ago.

Winckel* states that undue length of the perineum is one of the causes of rupture, but he does not consider the subject with anything like the completeness that Dupuytren did; while Olshausen,† in his enumeration of the maternal causes of this accident, does not mention the abnormal prolongation referred to.

In a recent contribution to obstetrics, by an Italian‡ physician, describing a case where delay in delivery occurred from what he termed an almost *tetanism* of the constrictor of the vagina, the author observes that the resistance of the perineum is not always due to the contractility of all its muscles, nor even to excessive rigidity of its fibrous elements, but a single muscle may be at fault, this constrictor for example. We introduce this reference simply to suggest that it is possible some cases of central rupture of the perineum are due solely to this obstinate contraction of the vaginal sphincter.

Further in the etiology of the accident, Dupuytren refers to two cases where the rupture occurred when the patient was delivered in the sitting posture, and remarks that in such posi-

* Pathology and Treatment of Child-Bed. Translated by Dr. J. R. Chadwick. Philadelphia, 1876.

† *Gazette Obstétricale*, October 5, 1874.

‡ *Annales de Gynécologie*, December, 1877.

tion the head of the child pressed downward and backward by the resistance of the pubic arch is forced more strongly against the perineum. We have quoted this statement because it is so contrary to that of a recent obstetric authority,* who asserts that "a kneeling or sitting posture is the most favorable for the passage of the child through the genital fissure."

Dupuytren remarks that the first recorded instance of central perineal rupture occurred, not in the human species, but in a mare of the queen of England, and was observed by the immortal Harvey.

In the human female, the first case noted of this accident was in 1778 by Nédey, a surgeon of Besançon; then follow cases by Coutouly, Denman, Joubert, Meckel, Gravis, Lebrun, John Douglas, Master, Moschener, Franck, Moreau, and two cases that came under his own observation. We may remark in reference to Denman's case, that while there was this central rupture, yet the delivery was not perineal: indeed, Denman would seem to indicate some skepticism, or at least not any full knowledge, as to such delivery, for he remarks that "through such perforation it is said children have sometimes been expelled."† Dr. Francis, in a foot-note referring to Dr. D.'s case, states that an instance of a similar laceration occurred in New York in the practice of a gentleman having much experience in midwifery, but says nothing as to perineal delivery.

Velpeau‡ has collected several cases of the accident, and has given with full details one of which he himself was witness.

Dr. S. C. Ellis§ has narrated a case of central rupture of the perineum, with delivery through the rent. The treatment pursued was adaptation of the parts, and a light compress;

* Schroeder. *Manual of Midwifery*, p. 306.

† Introduction to the *Practice of Midwifery*. Edited by Dr. John W. Francis. New York, 1821, p. 105.

‡ *Traité Complet de l'Art des Accouchemens*. Paris, 1833.

§ New York Journal of Medicine, November, 1848, and American Journal of the Medical Sciences, January, 1849.

and "in five weeks the patient was up and about, not experiencing the least inconvenience from her rather singular labor."

Dr. Thatcher* met with a case of this accident, used sutures, and in a fortnight the patient was well.

Professor Stoltz, † of Strasburg, had met with only one case in a practice of forty years. No special treatment seems to have been resorted to, and a year after the accident the rent was still visible, and partially occluded by the prolapsed uterus.

Dr. Matthews Duncan ‡ states that he has seen three examples. He then says:—"In one the rupture was healed by the timely early stitches of the medical attendant. In the other two, I operated long after the occurrence of the accident. Both were easily healed."

These two cases of Duncan's and the one by Stoltz disprove the assertion of Roux, that nature left to herself is quite competent for the closing of a central rupture of the perineum. Berard, § though not so absolute as Roux, taught that usually these ruptures healed spontaneously in six to seven weeks.

A single word as to the section of the bridge which separates between the perineal and vaginal opening. Dr. Bigelow's practice was that which was always advised by Dubois: such section "is similar in design to the operation for anal fistula." Dupuytren's teaching, however, was that the bridge should be left intact where immediate reunion was possible, for then it acts as a suture; but, on the other hand, it should be divided when the great retraction of the edges of the wound or any loss of substance, has caused so wide a separation such reunion is impossible.

T. P.

* American Journal of the Medical Sciences, April, 1851.

† Lancet, December 12, 1868.

‡ The Obstetrical Journal (American Reprint), May, 1876, p. 102.

§ *Dictionnaire de Médecine*, Vol. XXIII. Paris, 1841.

Reviews.

Forensic Medicine and Toxicology. By W. BATHURST WOODMAN, M. D., F. R. C. P., etc., and CHARLES MEYNOTT TIDY, M. D., F. C. S., etc., with eight full page lithographic plates, and one hundred and fifteen other illustrations. Philadelphia: Lindsay and Blakiston. 1877.

According to Voltaire,* Doctor Tamponet once said, playfully we imagine, that he always added to his *Pater noster*—

“Mon Dieu, delivrez moi de la rage de faire des livres.”

Now, we are very glad that Messrs. Woodman and Tidy never made this prayer, or having made it have found it unanswered. They have given us a volume of nearly eleven hundred pages (including the index), that is wonderfully interesting in the perusal, and can not but be most useful both to the medical and the legal profession. In the preface these statements are made:

“Although its subject is legal medicine, it deals with the medical rather than with the legal. The authors have felt that lawyers know the legal aspect of the subject better than physicians, whilst physicians know the medical part better than lawyers. Recognizing, however, the existence of a part of the subject belonging to both lawyer and physician, but special to neither, they have ventured on this mid-territory, trusting that their medical view of the land in question may be found of service to those whose profession leads them to regard it primarily from a different point of view.”

The book is divided into thirty chapters. The first of these embraces as topics the coroner's court, inquests, the superior courts, medical evidence, and fees legally claimable by medical men. The rules given for the guidance of the medical witness are excellent. The following instructions as to securing fees are worth remembering:

* *Dictionnaire Philosoque.* Paris, 1856.

“Fees are not recoverable from attorneys, but only from their principals in an action; and it does not appear that large fees are recoverable at all. A skilled witness should, therefore, take care to be paid before giving his evidence, if he has any doubts about the honor of those retaining him.”

Would it not be well if doctors were to make the rule of payment in advance in some other cases than the one suggested, and apply it more frequently than they do in both medical and surgical practice? A professional service rendered, even when the result is successful, is frequently not regarded by the recipient as worth half so much as he thought it would be; and where the result is unsuccessful, despite the best knowledge and skill and the most faithful attentions, people are often very unwilling to adequately compensate the physician or surgeon.

The third chapter considers the signs of death. From the fourth to the eighteenth inclusive, the subject of poisons—mineral, vegetable, animal and gaseous—is fully presented as to symptoms, post mortem appearances, chemical tests, etc.

Other subjects considered in succeeding chapters are microscopic examinations of hairs, seminal stains, blood stains, etc.; life insurance in its various relations to medical jurisprudence; personal identity; hermaphrodites, impotence and sterility, sodomy and pæderasty; pregnancy; malapraxis; criminal assaults and indecent exposure; premature labor, abortion, infanticide; unsoundness of mind; death by apnœa, etc.; death from lightning, cold, heat, sunstroke, starvation, etc., and finally mechanical injuries. The order is excellent, the composition clear, the bibliographic references quite abundant, the chromo-lithographs admirable, and finally the index has been well made, a compliment which many books do not deserve. The authors conclude this most interesting work thus:

“Dark and devious are the ways of crime and criminals, stealthy and secret as are the steps of the poisoner and assassin, yet there are few cases of crime on which the science of forensic medicine can not throw a flood of light. Although some of the subtler alka-

loids and rarer poisons present difficulties in their detection which severely tax the highest energies of the toxicologist—whilst questions of personal identity, or the origin of certain appearances in the dead body, may prove no less puzzling to the skilled medico-legist—yet no medical man, engaged in actual practice, can be certain that he may not be called upon, ere the day is out, to decide some one of the questions we have discussed. To obtain special eminence in this department requires special study, but every medical practitioner ought to know the general principles of forensic medicine. And other things being equal, he will be the best medico-legist who brings to his work a thorough practical acquaintance with his art, a keen eye to observe, an impartial mind to reflect and to decide upon the facts of each case; and whose first aim is not to distinguish himself in the witness-box, or in the columns of the daily press, but to discover and confirm truth. It is truth in facts, and truth in words, which will on the one hand lead to the conviction of the guilty, and on the other, which is surely no less important, to the acquittal of the innocent.”

An Address on Puerperal Eclampsia—Before the Christian County Medical Society. By J. P. THOMAS, M. D., Pembroke, Ky.

The writer considers in this pamphlet the etiology, pathology and treatment of eclampsia. The view held by many that the malady is due to anæmia of the brain is termed an absurdity, for the remedies most successful in its treatment are bromide of potash, chloroform, chloral, quinia, and the lancet, all of which lessen the amount of blood in the brain. The mechanical, albuminous and anæmic theories, as causes of puerperal eclampsia, are discarded, and that of Marshall Hall adopted, namely, “the reflex-motor action of the nervous system.” Chloroform, the lancet, veratrum viride, chloral, opium, and the bromides, are advocated as the best remedies in treating eclampsia; but chloroform is regarded as the sheet-anchor.

Lectures on Fevers. By ALFRED L. LOOMIS, A. M., M. D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York, etc. New York: William Wood & Co. 1877. 8vo., pp. 363.

These lectures were delivered to the medical class of 1876-77 in the University of New York, and hence the book is somewhat of the conversational nature. The fevers treated of are typhoid fever, yellow fever, the different varieties of malarial fever, typho-malarial, typhus and relapsing fevers, small pox, scarlet fever and measles.

Typhoid, the most important of the fevers, embraces seven lectures. On the subject of its etiology, Prof. Loomis thinks that it is not a strictly contagious disease, and is not of spontaneous origin, and that the exact nature of typhoid poison is still unknown. Taking this view of its cause he lays down some rules for its prevention in other members of the family. Great caution as to disinfection is urged. The excrements of the patient, which contain the poison, should, as soon as passed, be disinfected and then buried in trenches; for repeated observation shows that when one member of the family has typhoid, not unfrequently other members are likely to have it; and this spread of the disease can be prevented by a proper prophylaxis, unless there is a local cause, and by a faithful search local causes may be ferreted out in the drinking water, in the cess-pools, drains, etc., and radical measures adopted which will abate the disease. The above thoughts advanced by the writer are probably as important as anything he has said in the book.

After giving directions for the arrangement of the sick-room, the subject of treatment is then considered, concerning which such diverse views have, and do yet to some extent prevail. In the mild cases of typhoid, all medicinal interference is unnecessary the author thinks. The mild cases are those in which the temperature does not rise above 103° . In the Cincinnati Hospital, during the winter of 1876, some cases of typhoid fever, not very mild but uncomplicated, the tem-

perature reaching 104° , were treated by good nursing and a proper diet, and did well; possibly their convalescence was somewhat protracted. Milk diet is recommended, and *fruits are not to be allowed in any case*, even the mildest. The anti-pyretics commended are quinia in large doses—thirty to forty grains within two or three hours—and applications of cold. Attention is called to the fact that no remedial agent requires greater care and judgment in its use than cold applications. If the patient sleeps after a bath, there is no doubt of its beneficial effect; on the contrary, if the bath is followed by feebler heart's action, more rapid respiration and cold extremities, the bath is contra-indicated. The complications of typhoid fever are fully treated.

In the chapter on the etiology of yellow fever, the conclusions are that it is a poison in many respects similar to that of typhoid, which can be conveyed from one individual to another, when certain atmospheric conditions are present in connection with animal and vegetable decomposition; but Prof. Loomis says that those of most extended opportunities for studying the disease deny its contagious character.

On the subject of scarlet fever, speaking of prophylaxis, Prof. Loomis says, "It is doubtful whether the funerals of those dying of scarlet fever should be public." In a disease almost as contagious as small pox, much more fatal than varioloid, and in some forms as fatal as variola, there should be no doubt as to the privacy of the funeral; and in the announcement of a death from scarlatina in the paper, it should also be stated that the funeral is private, as was recently done by a doctor whose child had died of this disease.

For the relief of the itching and burning of the skin in scarlet fever, the author relies on sponging the body with tepid saline water, as it gives greater relief than anointing with oil, and is more easily applied.

Typho-malarial fever is more fully treated in this book than in any work on the practice of medicine. The section on medicine, at the International Medical Congress, by vote

expressed their opinion that "typho-malarial fever is not a specific or distinct type of disease;" but Prof. Loomis says there are pathological lesions found sufficient to stamp it as a distinct type of fever.

A. M.

Transactions of the New York Pathological Society. Vol. II. Edited by JOHN C. PETERS, M. D. 8vo., pp. 280. New York: William Wood and Co. 1877.

It has been only a short time since the society issued the first volume of its transactions, and now we have the second fully equal if not superior to the first, which was noticed in the April number of this journal. The secretary reminds the members of the society particularly, and the profession generally, that the income of the society is not large, and that its funds can only be replenished by a speedy sale of all the copies of both volumes, so that the third volume may not be delayed, but be published the latter part of this year.

This volume is devoted entirely to pathological specimens of the abdominal viscera, selected from material which has been accumulating from the foundation of the society in 1844 up to 1877. Of matters relating to the pathology and diagnosis of the various organs of the abdomen, this book is very complete, there being a larger collection of cases probably than can be found in any other work. The profession should profit by the society's work, and the society encouraged pecuniarily by a ready sale of its books.

Clinic of the Month.

APHORISMS IN FRACTURES.—The paper from which the following abstract is made was read by Professor R. O. Cowling, M. D., of Louisville, before the Central Kentucky Medical Society, in July, 1877, but was only published in a recent number of the Louisville Medical News. Nothing in our opinion has appeared concerning fractures for years which will be esteemed of greater value than these aphorisms:

Fractures form, perhaps, the widest chapter in surgery of any importance, and the experience gathered concerning them is correspondingly great. There are few members of the profession who have not treated a number of cases of broken bones, and yet with all these opportunities for observation a singular difference of opinion exists on some very fundamental points. John Erichsen, the apostle of plastic dressings in England, with the force of his great name and reasoning, had six years ago converted but the single hospital of which he was a surgeon to his teachings; albeit that south of the Ohio his doctrines, with the corroborative teachings (in the main) of Gross, have such sway; and in this country the practice of the two largest medical centers, Philadelphia and New York, is at total variance; and this variance in practice also prevails through the country at large. Practitioners are very slow to change the methods taught them in their early days, both from the fact that facility in new methods is hard to acquire, and respect for ancient teachers is lasting. It is for these reasons that one most disastrous form of dressing fracture remains to a great extent to the present time in Kentucky. I allude to the control of muscular spasm by the use of the direct bandage. Such were the lessons of Dudley at Lexington and Gross at Louisville. In their accomplished hands the method

was highly efficient and free from danger; but many a limb has been sacrificed to it when pursued by some of their less skillful followers.

The question of extension and counter-extension in fracture is still a vexed one. You will find in the article in Holmes by Mr. Flower that he describes a "crutch-splint" with which to exert these forces in fracture of the upper-arm; while, upon the other hand, the necessity for such measures is denied by a large body of surgeons even in fractures of the thigh. Men are divided upon the simple question of when to dress a fracture; and upon the apparently positive knowledge concerning the prognosis of fracture, and of how to dress a fracture, it would take volumes to record the literature with which surgery has been flooded. We have all felt the disadvantage of this, especially in the early days of our practice; how our memory has been taxed with the multiplicity of apparatus, losing sight, in the midst of so much paraphernalia, of the fact that the principle of treating every fracture is the same. It will be a grand day for surgery when the lumber-room which contains its fracture-boxes and splints of various designs shall be destroyed. The simpler necessities of our art could easily be restored.

GENERAL APHORISMS.

1. In establishing the diagnosis of fracture crepitus is the most satisfactory sign; nevertheless, it is not always necessary or desirable to obtain it.

2. There is frequently a physiognomy about fracture which declares the nature of the lesion; notably in Colles's fracture of the radius, ordinary fractures of clavicle, and fractures of the femoral neck.

3. The sensation of crepitus in recent fracture is *sui generis* and unmistakable. When once detected, further attempts to elicit it should not be made, except for the benefit of an accompanying physician, who may be in doubt as to the nature of the injury.

4. Crepitus can not be had in impacted fracture, except to the injury of the patient. It is exceedingly difficult to obtain in intra-capsular fracture of the femoral neck under all circumstances.

5. "Loss of function" as a symptom is all important in estab-

lishing diagnosis in certain fractures; notably in fracture of the cervical neck and fracture of the outer portion of the clavicle.

6. Whenever any doubt exists as to the diagnosis of fracture, the examination should be conducted under an anæsthetic.

7. The chief difficulty in the differentiation of fracture is from sprain, and not from dislocation, which has its own positive signs.

8. The prognosis in simple fracture is always favorable when the injury is confined to the shaft of the bone, even if there be comminution of the bone.

9. In multiple fracture, when simple, the healing process is not retarded.

10. In fracture involving a joint more or less stiffness is always to be feared.

11. With the improved methods of treatment the danger to life and limb in compound fracture has been reduced to such an extent, that former laws for determining the question of amputation are to be recast.

12. The best time to dress any fracture is immediately after its occurrence.

13. Temporary dressings are only to be used when the materials for permanent dressings are not to be obtained, or for the purpose of moving the patient.

14. Under proper treatment immediately instituted swelling will probably be prevented.

15. The indications for treatment of fractures are, first, reduction of the fragments of bone; second, their immobilization.

16. The dressing of all fractures is best done under an anæsthetic; which not only secures the comfort of the patient, but by its influence over muscular spasm gives the best chance for perfect reposition of the fragments.

17. Perfect immobilization is only to be obtained when the joints contiguous to the fracture are secured; and there is no law more important than this in fractures of the lower extremity.

18. One of the commonest reasons for the failure and disaster in the treatment of fracture arises from the fact that bone and muscle only are considered, blood-vessels and nerves left out of sight.

19. Carved and manufactured splints generally fit nobody, and are to be rejected as not only expensive but damaging. Deal-board, paste-board, and the materials for the plastic apparatus, form all the appliances needed by the surgeon.

20. The application of a bandage immediately to the skin, whether as a protective or to prevent muscular spasm, has resulted in such disaster that it is one of the curiosities of surgery how it could be repeated at this day. When cotton is placed *over* such a bandage it forms an absurdity scarcely credible in a man of ordinary sense.

21. Evenness of pressure is only to be obtained by the proper lining of the splints or retaining apparatus with cotton, or in the case of compound fracture with oakum. The method of padding splints, or protecting limbs with folded lint, blanket, etc., is not only vastly inferior, but generally results in discomfort to the patient, from the close packing of the material.

22. The cotton to be used is preferably that known as "batting"—"wadding" is inferior. It is of prime importance to use proper batting whenever it can be obtained. It varies greatly in quality, and only the best should be used. This is smooth, easily separated in layers, and free from foreign substances, which produce inequalities and irritation. The layers should be unbroken. It is next to impossible to make an even dressing with the broken bits which the housewife so often offers to the surgeon. It should be freely used, especially over bony prominences. A fracture in the thigh of ordinary dimensions, will generally require a "pound-roll." It is to be smoothly and evenly applied. For convenience it may be held in site while the rest of the dressing is applied by ordinary sewing-thread which does not constrict.

24. Continued extension and counter-extension are, as a rule, not necessary to prevent shortening in fractures. This is best done by removing the causes which lead to muscular spasm:—first, by early interference; second, by as complete reposition of the fragments as possible; third, by the smooth application of cotton batting to the limb; fourth, by the equal pressure of the bandage going from the distal end of the limb to a point beyond the joint above the fracture; fifth, by the accurate fitting of the splints or plastic material for support; sixth, by as little interference afterward as possible.

24. Angular deformity is best overcome by the same measures as are used in longitudinal deformity. Compresses are to be avoided as insufficient and unsurgical.

25. Bandages are made of cotton or cheap flannel (preferable for the cotton in it), with the selvage edge torn off, and thoroughly shrunk.

26. Plastic material consists of cotton, bandages, plaster-of-paris, eggs and flour, starch, liquid glass, etc.

27. Comfort is the sign that a fracture has been properly dressed. A certain amount of soreness may be left after any fracture, and with some temperaments pain may be present even when the fracture is properly dressed; but the general law is that pain should speedily subside when the dressings are not at fault.

28. Frequent dressings of fractures for the purpose of examination are not only useless but hurtful.

29. Wherever it is possible, after the dressing of a fracture, it should be seen again in a few hours, and the case should receive daily attention in its earlier stages.

30. The surgeon is to regard not only the welfare of his patient, but his own reputation. To this end he ought to give fair warning as to possible ill results. As suits for malpractice have arisen oftener from fracture-cases than any other kind, it will be remembered there is one thing which the law is slow to excuse—neglect.

31. If there be a consultation between two physicians in a fracture-case, and a difference of opinion in regard to treatment arise, one should yield. Compromises in cases of this kind are apt to result badly, while fractures may do well under almost any reputable method properly pursued.

32. If in a case of fracture a consultation is called of a surgeon by one who does not make special pretensions to the art, he should resign to him the conduct of the case, as on him will rest the responsibility of the outcome. In other words, he who “sets” the fracture, not he who watches it, is charged with the result.

33. Whenever a fracture occurs every physician in the community within reach is summoned. The doctor should, therefore, be ready to treat such cases not only for the comfort of the patient, but for his own profit.

FRACTURES OF THE FORE-ARM.

34. There is but one mode of dressing necessary for all fractures of the fore-arm, whether these be of one bone or of both, and whatever be their situation.

Method of Dressing.—The pieces for dressing a fractured fore-arm consist, first, of cotton-batting; second, of light wooden splints; third, of bandages. The splints should extend from the elbow to the tips of the fingers; they should be a trifle wider than the wrist, to prevent lateral pressure upon the bones and the obliteration of the interosseous space; they should not be much wider, else lateral

displacement may occur. For convenience they may be shaped to the arm and hand. It will always be found more convenient to envelop the arm with the cotton, instead of padding the splints with the same; and where splints are padded with the cotton it is always better to fasten this material by a few turns of ordinary sewing-thread. The method of padding splints by securing the cotton with bandages interferes greatly with their plasticity and comfort.

The bones having been put in apposition by gentle extension, and the splints secured to the palmar and dorsal aspect of the arm by proper bandaging from tips of fingers to elbow, the arm is to be placed in a sling, with thumb pointing upwards, in which position the bones are half way between supination and pronation, and the interosseous space is well preserved.

The dressing, when fitted for fracture of the fore-arm, is not to be removed, if comfort declares that it is properly doing its work, for a week or ten days, when the splints are to be shortened, so that they shall not reach beyond the roots of the fingers—and these are to be exercised frequently to prevent stiffness.

The interosseous pad, formerly considered necessary to preserve the interosseous space, is very nearly obsolete, and should be entirely so.

35. The pistol-splint does nothing toward preserving the interosseous space.

36. The complicated dressings for Colles's fracture of the radius are not called for, and such dressings as include a compress to correct deformity are to be condemned as unsurgical, not only at the wrist, but any where.

37. In Colles's fracture, after union has taken place, there frequently remains some of its characteristic deformity. In the young this generally disappears under the play of the muscles, or sometimes in bone recently united it may be remedied by actual compression.

38. A common result in Colles's fracture, and in fractures near the wrist in adults, and especially in the aged, is a severe and persistent neuralgia. It is best treated by the hot-water douche.

39. In fractures of both bones of the arm, and frequently after fracture of one bone, after union there is a bowing of the fore-arm always toward the ulnar side. Sometimes this is chiefly apparent, often real. It will frequently disappear, even when excessive, under the play of the muscles, especially in the young.

40. Stiffness of the tendons and of the wrist-joint are not confined to Colles's fracture, but may occur with other fractures of the arm. Massage and passive motion will generally effect relief.

41. Many physicians do not have clear ideas concerning the fitting of a sling. It should always be worn so that the straight side comes to the hand, and the angle to the elbow.

42. Fractures of bones of the hand are best treated like fractures of the arm.

FRACTURES NEAR THE ELBOW.

43. Every injury, save fractured olecranon, near the elbow-joint, whether it be fracture or dislocation, should be dressed with rectangular splints.

Method of Dressing.—The rectangular splints for the elbow are best made from paste-board. The limb, from the fingers to the shoulder, is to be enveloped in cotton; the splints, moistened in water, are to be applied laterally, molded and confined with bandage from hand to shoulder. At the end of a week or ten days they are to be removed, and passive motion to be gently instituted, and this had best be repeated every second or third day during the progress of the treatment. Rectangular splints are called for in injuries near the elbow, as effecting in the best manner immobilization; and, secondly, should ankylosis result from the injury they preserve the arm in the best possible shape for its future usefulness.

44. More or less stiffness of the elbow is to be expected in every fracture occurring near this joint. If the fracture be through either condyle it can not well be avoided, as passive motion in such cases, when early instituted, is liable to prevent union of the bone; but if the bone be broken above the condyles, it can frequently be prevented by careful treatment.

45. Where decided stiffness has persisted for some time after the union of fracture near the elbow, much can be done for its relief by passive motion and massage, if faithfully pursued.

46. In fracture of the olecranon where there is no separation of the fragment, owing to the fact that the fibrous expansion of the triceps is unbroken, the arm may be dressed in an angular position. In fracture with separation of the fragments of this bone, it is necessary for their apposition that the arm be dressed in an almost straight position, but the earliest possible moment should be seized to bring the arm back to an angular position, that ankylosis may not occur with the arm straight and useless.

FRACTURES OF HUMERUS.

47. Fractures of the humerus in the lower half are best treated by rectangular splints, as in fractures of the elbow. Fractures of the upper end require shoulder-cap, the spica, etc.

Method of Dressing Fractures in Upper End of Humerus.—Fractures of the upper end of the humerus, including fractures of the shaft, surgical and anatomical neck, are dressed, first, by enveloping the limb from hand to shoulder with cotton; second, by bandaging from the hand to upper arm; third, by fitting cap

to shoulder, and over this carrying the spica bandage. The body of the patient acts as the inside splint, the hollow being filled with a folded towel, and the arm is secured to the side by additional turns of the bandage, the fore-arm supported in sling.

48. Stiff joint at the shoulder is not liable to occur in extra capsular fracture.

FRACTURE OF CLAVICLE.

49. Two methods of dressing a fractured clavicle are worthy of consideration. These are:—first, for temporary purposes, an ordinary sling, lifting the fore-arm to an acute angle across the breast, with a band passing around the body, confining the arm closely to the side. For a permanent dressing Sayre's method, by adhesive strips, is the most convenient and efficient.

50. Whenever the clavicle is broken at its great convexity, and shows the characteristic deformity, perfect apposition is difficult to effect or to maintain, and deformity will remain to a greater or less degree after union has taken place. It is more likely to be prevented by keeping the patient in a recumbent posture, or by using means to fix the scápula.

51. Fractures of the outer third of the clavicle are frequently overlooked by physicians, the injury being mistaken for a sprain. Displacement is not liable to occur in this situation, and crepitus is difficult to elicit. Wherever, after a fall or other injury, sharp pain is developed by pressure upon the outer third of the clavicle, fracture at this point is to be suspected.

52. The axillary pad in Fox's apparatus can not be worn with comfort, and is of very doubtful utility.

FRACTURES OF THE RIBS.

53. In fractures of the ribs the jack-towel, or better the roller, is our chief reliance. Adhesive strips or collodion and gauze, over and around the seat of fracture, are generally not practicable, and not always efficient to conquer pain, which is the one thing we are to attack.

FRACTURES OF THE JAW.

54. In fractures of the jaw our chief reliance is in Barton's, Gibson's, or the four-tail bandage, and soft food. Internal apparatus (inter-dental splints or tying the teeth together) practically amounts to little.

FRACTURES OF THE NOSE.

55. In fractures of the nose the main thing is early interference, and reposition of the fragments. Apparatus to keep the bones in place afterward are principally theoretical.

FRACTURES OF THE PELVIS.

56. In fractures of the pelvis our chief reliance is in relaxation of the abdominal muscles, and control of these from spasm from cough, etc. This is best done by the inclined plane and anodynes.

FRACTURES OF THE LOWER EXTREMITY.

57. The proper dressing for every fracture of the lower extremity is the plastic apparatus.

Method of making Plastic Apparatus.—In all cases the cotton should come first; next, thread holding it in place till it can be secured evenly by bandages, and on top of this the stiffening material.

Plaster-of-paris.—To be fresh, finely ground (dental plaster), and well rubbed into slazy bandages of cheese lining, not more than three yards long, these to be dipped in water and applied in two or three layers over limb.

Flour and Eggs.—Whites to be well separated from fresh eggs, and thoroughly beaten to a froth; sifted flour to be stirred in to make a paste, which is to be rubbed into cotton bandages as they are carried over the limb, in three or four layers.

Starch.—Method of application the same, except that it generally requires the addition of splints for proper stiffness.

58. The plastic apparatus in fractures of the lower extremity is not only the best of dressing, but most comfortable to patient and surgeon.

59. Failure or disaster with the plastic apparatus in fractures of the lower extremity has been due generally to its improper application, or to causes which would have operated had it not been used.

60. The chief causes of failure with the plastic apparatus have been, first, the absence of cotton as a foundation, or its scant or irregular application; second, unequal pressure of retaining bandages; third, improper material; fourth, neglect to secure the upper joint, especially a neglect of the spica in fracture of the thigh.

61. Under the properly applied plastic apparatus, swelling is not liable to occur.

62. In recent fracture, and above all in compound fracture, plaster-of-paris is to be preferred in the manufacture of the plastic apparatus. After union has taken place, other materials may be used from consideration of lightness, etc.

63. Plaster-of-paris bandages are generally sufficiently firm for their purposes inside of thirty minutes; the flour and egg mixture within twelve hours, with manilla paper somewhat earlier; prepared chalk and gum, oxide of zinc and glue, and starch, seldom harden under forty-eight to seventy hours.

64. Particular care should be taken to keep the foot at right angles during the application of the plastic apparatus.

65. In compound fracture it is not necessary, as a general thing, to cut a trap in the apparatus under a week or a fortnight.

66. The "burning heel," which is so apt to come on soon after the application of the plastic apparatus, is best remedied by shifting the position of the limb. It seldom requires a division of the apparatus.

67. The plastic apparatus is to be cut and tied with loop bandages, when from force of circumstances the surgeon can not watch it, or for swelling or shrinking of limb, otherwise it may pass on to the end unopened.

68. While it is possible for the patient to be moved immediately after the application of the plastic apparatus to the lower extremity, and even for him to go on crutches, he is best in bed during the earlier stages of his treatment.

69. It is possible, but not probable, that fractures of the thigh may heal without shortening.

70. It is most probable that those fractures of the thigh will heal without shortening, which occur in the young, toward the lower end of the shaft, which are dressed under an anæsthetic early, by the plastic apparatus, well applied, and carried above the pelvis; nevertheless, fractures even of the upper third in stout adults may so heal when dressed as above described.

71. Shortening of the lower extremity under an inch can be concealed by obliquity of pelvis, or by an additional leather or so to the heel.

72. Measurement of the lower limbs from anterior-spinous process to malleolus, can not be accurately done. It is better to put one end of the tape at the umbilicus, and carry it in succession around either foot back to the point of departure. The difference indicated in this manner is twice the difference between the lengths of the limbs.

73. In fractures of tibia or fibula about ankle, stiffness of this

joint for several months is generally inevitable. Use and massage form the treatment.

74. In fractures of the thigh high up there is tendency of bone to bow outward. This may show itself for some time after the union of the bone. If not excessive, it generally disappears under the play of the muscles.

75. If extension and counter-extension should be demanded in fractures of the lower extremity, there are but two methods worthy of consideration; one by "Buck's" weight and pulley, the other by Smith's anterior splint, or methods on the same principle.

76. Extension and counter-extension practiced by means of the long splint, perineal bands, etc., are useless. If the force is exerted sufficiently to have any influence on the muscles, the perineal band becomes unbearable. The apparatus speedily becomes disarranged, and requires constant professional supervision. Whatever use the long splint may have, is in correcting somewhat angular deformity.

THE ACTION OF CAFFEIN.—In the *Memorabilien*, Vol. XXII, No. 11, Dr. Kelp, of Oldenburg, gives a case illustrating the therapeutic action of caffein, viz.: A widow, thirty years old, who had formerly enjoyed good health, became very nervous on account of constant care and anxiety. She felt feeble, suffered sometimes with fainting spells, complained of anorexia, indigestion and restless sleep, frequent throbbing of the carotids, and a constricted feeling in the region of the neck. The use of tonics, preparations of iron, quinia and salt baths, showed insignificant results. The employment of sea baths was the only thing useful, without which the sufferings were severe. An examination of the organs of the chest showed them to be normal. The menstrual flow was scant.

When she became sick again she felt exceedingly irritable, and was ordered at one dose twenty-four centigrammes of citrate of caffein, nearly four grains, which she repeated during the day. After the patient had taken the second powder she became remarkably restless and dizzy, and as she could not stand erect she was compelled to lie down. She was affected with sharp præcordial pains, palpitation of the heart,

abdominal pulsation, a marked trembling of all the extremities, audible chattering of the teeth, an anxious prepossession of the mind, a tightening sensation about the throat and cervical region, which occurred periodically every quarter of an hour. The pulse was very frequent. This condition lasted about three hours, then gradually disappeared, so that the patient within twenty-four hours had fully recovered, and could pursue her work again. The extraordinary and intense effect of caffein upon the nervous and circulatory system was surprising, as the symptoms came on almost at once, following the second dose.

Several writers are quoted, the experience of some of them in the use of caffein being somewhat similar to the symptoms developed in this case. The French physicians, Dr. K. says, are known to have given this remedy in very large doses, beginning with five centigrammes, and increasing up to two and to four grammes. Caffein, given in large doses to animals, produces death in a few hours, causing reflex action and tetaniform convulsions, as in strychnia poisoning.

FEEDING PER RECTUM.—The following brief extract from the London Lancet, December 8th, has special interest in connection with the elaborate paper by Dr. Austin Flint in this number of the American Practitioner:

An article appears in the *Deutsche Zeitschrift für Praktische Medicin* (No. 44, 1877), in which Dr. Kauffmann draws attention to the excellent results he has obtained from the plan of feeding the patients with pancreas and meat in cases of persistent and incurable intestinal obstruction. He states that he has had nine patients in the Kölner Bürger Hospital, seven of whom were suffering from cancer of the œsophagus, one from cancer of the pylorus, and one from chronic ulcer of the stomach. In all of these a cleansing enema was administered in the morning, followed by the introduction into the rectum of a mixture of a pound of finely divided beef, and one-third of a pound of finely minced pancreas, the whole being freed from fat and connective tissue. Half of this quantity was

used at noon, and half at six in the evening. The results were excellent; a solid well-formed, healthy evacuation was discharged every day. The patients were able to walk about, and lived for nine or more months.

PHTHISIS.—Dr. Hayden, an eminent Dublin physician, at a late meeting of the Medical Society of the College of Physicians, read a paper on this disease, giving an abstract of three hundred and thirty cases which had come under his notice during the last twelve years. He recognizes three forms—the tubercular, broncho-pneumonic or caseous, and the fibroid. Dr. Hayden found in these cases of phthisis that the males preponderated in the proportion of nearly two to one, which represents the relative proportion in which the disease affects the laboring classes, in which seven-eighths of the cases occurred. The chief symptoms of the first stage, or that of deposition, were stated to be comparative immobility of the infra-clavicular region, with falling in of the supra-clavicular fossa during a full inspiration; the special signs being feeble or interrupted respiratory murmur, prolonged expiration, and increased transmission of the heart-sounds. The stage of softening is shown by coarse and resonant crepitant râles, localized to the apex of one or both lungs, combined with flattening, dulness on percussion, and muco-purulent sputa; whilst the third stage, or that of excavation, was shown by metallic sounds and gargouillement. As regards the curability of phthisis, Dr. Hayden referred to several cases, observed by various physicians, in the third stage which ultimately recovered, one or two having occurred in his own practice, and in the earlier stage he had witnessed several examples. When cod-liver oil can not be taken, arsenic in small doses, alone or along with Parrish's compound syrup of phosphates, was recommended; and Dr. Hayden has found Dover's powder in five-grain doses the best remedy for the night-sweats—a medicine, if we are not mistaken, first advocated by Dr. Stokes for this distressing symptom. (*Lancet*, Dec. 22d.)

ABSORPTION OF MEDICINES BY THE VAGINAL MUCOUS MEMBRANE.—Dr. Dupuy, *Gazette Obstétricale*, December 5, observes that the application of absorbable medicines to the vagina, is not a novelty. He refers to the uses of belladonna thus by Chaussier and by Dubois, and a similar plan in recent years being used for vaginismus, and then remarks as follows:

We have recently resorted to the direct application of medicines to the vaginal mucous membrane, in a case of retention of urine caused by spasmodic contraction of the urethra and neck of the bladder in an hysterical woman. This retention, which had resisted ordinary means and general antispasmodic treatment, yielded readily to suppositories made according to the following formula:

R̄ Muriate of morphia,	. . .	0.03 centigrammes.
Extract of belladonna,	. . .	0.05 centigrammes.
Extract of hyoscyamus,	. . .	0.02 centigrammes.
Butter of cacao,	. . .	4.00 grammes.

Make into a vaginal suppository. The patient was directed to pass this as far up the vagina as possible, and keep it in place by some small tampons of cotton.

In the pains, frequently atrocious, of cancer, we have often successfully resorted to the same method.

We think it quite certain that absorption of medicines by the vaginal mucous membrane should be faithfully studied, and that it is possible to realize from this study important therapeutic results. A first effort in this direction has been made by Dr. E. W. Hamberger, *Prager Viertel Jahrsschrift f. Prakt. Heilkunde*. The author has lately made a certain number of experiments to determine the power of absorption of the vaginal mucous membrane. These experiments were made upon women from twenty to thirty years of age. A tampon impregnated with the medical solution was introduced into the vagina through a Fergusson's speculum, and retained by a dry tampon in order to prevent any external flow of the solution. These tampons were retained for twenty-four hours, and the urine was examined for the different medicines used. The iodide of potassium was found in the urine two hours

after the introduction of the tampon, and twenty-four hours after its removal the salt was still discovered. The ferrocyanuret of potassium was found at the end of three hours, and was still apparent twenty-four hours after the tampon was withdrawn. Salicylic acid is readily found in the urine, by the perchloride of iron, three hours after the introduction of the tampon. The bromide of potassium, the solution being six to one hundred, was discovered in about the same length of time; and the chloride of lithium, eleven to one hundred, after two hours.

The administration of medicines by the vagina can, says Hamberger, be resorted to in all cases of any obstruction of the other normal ways, and find its special application in gynecological practice.

THE TREATMENT OF TETANUS.—Dr. Henri de Renzi, who has had the opportunity of treating an unusual number of cases of tetanus, has employed the most various therapeutic agents as opium in large doses, subcutaneous injection of morphia, atropia, curara, prolonged baths of hot water, large doses of hydrate of chloral, the application of electricity, but without successful result. The only instance in which he was successful was one in which the patient was kept in absolute rest. In one of the fatal cases the author satisfied himself that the number and intensity of the tetanic spasms underwent considerable increase as soon as daylight was allowed to penetrate into the previously dark room. In frogs in which he had produced tetanus by means of strychnia the tetanic spasms were much more intense when the animals were exposed to light than in those that were kept in the dark. The attacks were also more frequent and violent in animals made to move about than in those kept at rest. On these grounds M. Renzi adopts the following plan of treatment: He keeps the patient in a perfectly dark and thickly carpeted chamber, the door of which is only gently opened every four hours for the purpose of supplying food. The external auditory mea-

tuses of the patient are closed with wax, and the patient recommended to keep at perfect rest. The food given consists of beef-tea, eggs, and wine. The medicines consist only of belladonna powder and ergot. By the employment of these means Renzi has succeeded in saving the lives of three out of four tetanic patients. (Practitioner, from *Gazette Médicale de Paris*.)

SULPHATE OF CINCHONIDIA.—The therapeutic value of the sulphate of cinchonidia has been pretty thoroughly tested in the wards of the hospital for the last seven or eight months, during which it has been almost invariably substituted for quinia wherever the latter would have been indicated. The results have been very satisfactory, and its use is still continued. It is employed as a general tonic, an antiperiodic, and is on trial as an antipyretic in typhoid. As a general tonic it has apparently been as effectual as quinia, its power in controlling malarial affection has been unquestionable, and it has seemed to possess very decided antipyretic properties, but has been used in too few cases, perhaps, to prove its power. The plan of administration has been to give one full dose once in twenty-four hours when some decided effect was desired, as breaking up the chills in intermittent or reducing the temperature in typhoid; otherwise it has been given in doses of from two to five grains three times a day. (Report of Hartford Hospital—Boston Medical and Surgical Journal.)

INODOROUS IODOFORM.—Ether dissolves iodoform, and removes its disagreeable odor. If the solution be applied to a surface, the ether soon evaporates, leaving behind a uniform layer of iodoform. (*Gazette Obstétricale*.)

Notes and Queries.

1877-1878.—Since we last addressed our readers the old year has departed and the new year come. Writing now, when the first month of 1878 is nearly half gone, we still desire to express hearty good wishes for the health and the happiness of the readers of the *American Practitioner*. Many of them have followed the fortunes of the journal since its commencement in 1866 as the *Cincinnati Journal of Medicine*. Others have given their alliance to it in one or other of its subsequent migrations. Several have become subscribers within the last few months. But to all our friends, new and old—to all, whether in the east or west, north or south—we give our kindest greeting, and hope that this new year may be abundant in good things for them and theirs.

The *American Practitioner* during 1877 has presented in its pages contributions from some of the most eminent in the profession, such as Austin Flint, N. S. Davis, L. P. Yandell, T. Gaillard Thomas, Thomas Addis Emmet, Louis A. Sayre, David Prince, William Carson, L. Duncan Bulkley, John A. Octerlony, L. P. Yandell, Jr., James R. Chadwick, James F. Hibberd, Dr. Heywood Smith of London, Dr. Martin of Berlin, and others. Its foreign correspondence has included letters from London, Berlin and Dublin. Many of its reviews have been among the ablest contributions to medical literature during the year. It has abstained from personalities, which, generally published anonymously, are often the emanations of personal malevolence, or of a small intellect incapable of distinguishing between an individual and a principle, and contribute nothing to the improvement of the profession. We believe the better class of doctors have no sympathy with personal journalism, and desire rather those things which inform the

mind and help in daily living. When assailed it is better to take no notice of the assailant, anonymous or not, for

"A moral, sensible, and well-bred man
Will not affront me; and no other can."

More than once we have declined contributions, on the ground of their personalities, even though the parties attacked deserved no favors, no shielding from severe criticism, exposure and rebuke, at our hands.

The American Practitioner will be true to its past history, and consistent with the character it has established.

The journal will have, if possible, a still stronger array of contributors in 1878 than in 1877; among them will be several whose names are as household words with the American profession. May we not ask our subscribers generally to be contributors? Not one of them but might add something to the stock of professional knowledge, and thus help some toiling brothers. If hurried by professional duties, give facts now without waiting for the leisure to write a formal article. Brief, pithy observations as to diseases and remedies, short histories of cases, will be read by hundreds when a long contribution will not be read by ten.

The subscription list of the American Practitioner has increased decidedly during 1877, and we hope for still greater increase in 1878: we wish that increase would be so large in this month of January that we could permanently add at least twelve pages to each issue of the journal; and a very little effort on the part of even a few of our friends would secure this addition.

The life of a physician has its trials, trials from within and from without, many of them peculiar to his calling. But clear conceptions of duty, and faithful determination to discharge it, regardless of temporary consequences, regardless of final success, will enable him to do, and to endure, each triumphantly.

By mutual help we can bear each other's burdens, and bravely walk our appointed ways in life, each one seeking not so much the honor of men, as to be useful to them, make

them wiser, healthier, happier. The unjust hatred of another must never kindle a corresponding malevolence on our part. Those who reject capital punishment declare that to hang a man is the worst use he can be put to; but to hate a man is generally the worst use we can make of our own hearts. In giving and receiving kindness we will keep our hearts from being chilled by occasional shameless ingritudes. Life is short, too short to waste in tears, in vain regrets, in idle pleasures, in unseemly strife. But let the high purpose to make it a blessing to our fellow-creatures throb in every pulse, thrill in every nerve, pervade the entire being, and that life may be a poem whose music shall be heard in the midst of earth's discords, a gospel omnipotent to remove many a burden of sin, of sorrow, and of suffering.

FRENCH ERRORS AS TO PERSONS AND PLACES.—When some months ago we found in a French medical journal, Dr. Goodell of Philadelphia, transformed into Dr. Goodhell of New York, we could not believe a greater blunder of the kind possible. But it is possible, for we have it before our eyes. In a recently received monograph, *De la Métro-Péritonite Puerpérale*, by Dr. Ernest Lambert, the author referring to the doctrine of the *essential* nature of puerperal fever, states that this doctrine has been maintained à New York par Bolter, Blundell, Olivier, Mandell, Halmes, etc. Of course all know who Blundell is, the orthography is correct, though unfortunately for the geographical accuracy of the author, Blundell belonged to London. But then Bolter—who in the name of wonder is Bolter! Alas, for the narrowness of professional fame when Fordyce Barker can be spoken of as Bolter. And Olivier, Mandell, Halmes. Does New York know these three eminent men? Has she ever known them, and may she claim their fame as part of her glory? Harvard has a professor who has intellect and scholarship enough to be divided into three men of first rate abilities, but his body would hardly permit a similar tripartite disposition. Nevertheless, Olivier, Mandell, Halmes, can be no more, no less than Oliver Wendell Holmes.

ALLEGED FREQUENCY OF MASTURBATION.—We copy the subjoined statements from a clinical lecture in one of our December exchanges: "This practice of masturbation is a very prevalent one in both sexes; it is almost universal in boarding schools." A literal construction of the first statement would imply that form of onanism in which male and female are jointly engaged in the polluting practice, a statement which is very far from the truth. But we suppose the speaker meant in each sex, instead of both sexes. Putting the statement thus, we still believe it far beyond the truth; and this belief we think will be shared by the majority of intelligent men and women, both professional and lay. Further, we do not believe that the majority of boys ever become habitual masturbators—possibly were never even occasional masturbators; and so far as girls are concerned only a very small minority are ever guilty of such vice. Some years spent as a teacher in two boarding schools,—one for boys, the other for girls; more than twenty-five years of professional life, during five of which there has been the professional charge of not less than four hundred women and girls in a reformatory and penal institution, give the writer of this note ample grounds for the belief he has expressed as to the first statement quoted. So, too, an unqualified disbelief of the second statement, viz., masturbation is almost universal in boarding schools, must be declared, so far at least as such schools in this country are concerned. What father or mother would be willing that sons and daughters should go to boarding schools, knowing by their own experience and observation such polluting practices were so inevitable as this clinical teacher tells us! In the name of refined and educated women, a majority of whom were once pupils of boarding schools, the statement may be denied as to the schools for their sex. And we believe that there will be in the daughters born of these mothers—daughters now in boarding schools—such virgin purity that they will be safe from this manifestation of that "lust" which,

"By unchaste looks, loose gestures, and foul talk,
But most by lewd and lavish act of sin,
Lets in defilement to the inward parts."

LACERATION OF A FOLD OF THE VAGINA DURING CHILD BIRTH.—Dr. L. J. Woollen, of Vevay, Ind., gives a report of this interesting case:

Mrs. S., aged nineteen years, a primipara, was confined October 26, 1877. The labor was severe, but not tedious. Toward the close of the second stage, the pains were severe and long continued; and the soft parts being very unyielding, I feared rupture of the perineum, and therefore gave proper support to the part when the head and shoulders passed the outlet. There was a sensation imparted to the hand, during the passage of the head, as if something had given way. After labor terminated I examined the parts with my finger, and became convinced that there was some laceration, but as a considerable portion of the perineal space was intact I considered the injury of trifling importance. Giving directions to the nurse to keep the limbs in close contact, by passing a bandage around the hips and thighs, I left her with instructions to send for me if any departure from the usual course of lying-in cases was observed.

Eighteen hours after confinement I was called to see the patient, and informed that, after many trials, she found it impossible to empty the bladder. I proceeded to use the catheter, and for that purpose, and to assure myself of the actual condition of affairs, I exposed the parts to view, and discovered, much to my surprise, a torn piece of tissue lying without the vulva at its posterior commissure. It was about half an inch in breadth and one inch in length, being somewhat broader at the base than the apex. Upon careful examination, and tracing it up to its origin, I found that it was a portion of the posterior and left lateral wall of the vagina, the base having close connection with the left nympha. A fold of the posterior wall of the vagina had evidently been carried downward by the pressure of the child's head, and failing to slip over the fetal head had been lacerated by the strong expulsive pain, just as the perineum is torn in ordinary cases of rupture. Two days after delivery, the outer half of the torn fragment was black, and soon sloughed off. In two weeks the parts had nearly healed, contraction of the tissue

having closed up the rent, and the patient was able to sit up without inconvenience.

I watched the case closely, fearing that grave constitutional symptoms might supervene; but at no time were the symptoms at all alarming. On the second day after confinement the pulse was 120, and the temperature 101° . On the third day the pulse was 112, the temperature remaining as before. From this time the fever declined, and all the symptoms improved. The catheter was used on the second and third days, after which the patient was able to void urine without much difficulty. The swelling reached its acme on the third day, and on the fourth there was marked improvement in all the local symptoms.

The perineal space in the patient is large, and I hardly think that there is danger of a recto-vaginal fistula being formed. The bowels are somewhat constipated, but yield readily to moderate doses of purgative medicines.

APPARENT SUPERFETATION.—Dr. John B. Harris, of Newton, Ill., narrates the following case:—On the 20th of January last I was called to Mrs. R., who was in the third month of pregnancy, and was suffering with intense hemorrhage and pain. The next day I found her better, but there had been no ovum discharged. On the 13th of November I attended her in confinement, delivering her of a healthy, mature infant. Removing the placenta I also removed an embryo of between two and three months. These facts are only explicable by one of three hypotheses: First, the womb did completely abort, a twin pregnancy followed within a month after the abortion, and one of the embryos died some time between two and three months. Second, Mrs. R. became impregnated at the same time as in the previous supposition, but this impregnation occurred and pregnancy was completed while a dead embryo of between two and three months was within the uterus; in other words, the case was one of superfetation. Third, like some of the inferior animals, this lady has a double uterus, and the second pregnancy was accomplished in the opposite half of the organ to that in which the first occurred.

A GOOD STORY OF RADCLIFFE.—In the biography of the celebrated Dr. John Radcliffe, the following incident is narrated: Among many of the artifices by which the credulous have been imposed upon, the pretensions of the urinoscopists of former days were not the least significant. A foolish woman, provided with the infallible indication of disease, came to Radcliffe, and, dropping a courtesy, told him that having heard of his great fame, she made bold to bring him a fee, by which she hoped his worship would be prevailed upon to tell her the distemper her husband lay sick of, and to prescribe the means for his relief.

“Where is he?” cries the doctor.

“Sick in bed, four miles off,” replies the woman.

Taking the vessel, and casting an eye upon its contents, he inquired of the woman what trade the patient was of; and learning that he was a boot-maker, “Very well,” replied the doctor; and having retired for a moment to make the requisite substitution, “Take this home with you, and if your husband will undertake to fit me with a pair of boots by its inspection, I will make no question of prescribing for his distemper by a similar examination.”

WHY DE QUINCEY WAS AN OPIUM-EATER.—Hardly any one interested in medicine or literature but knows the enormous and long continued use of opium by that prince of opium-dreamers, that master* of English composition, Thomas De Quincey. In the appendix to Page’s† life, Dr. Eatwell contributes a chapter in which he ingeniously explains the excessive use of opium by De Quincey by the supposition that the latter suffered from ulceration of the stomach. After mentioning the peculiar physical sufferings which may be learned from various places in his writings, Dr. Eatwell ob-

* We still write master, though an expression we find in one of the recently published letters shows that he could desert the simple Saxon speech for longer words of Latin origin. Thus he writes of “nocturnal perspirations,” a sort of Johnsonian way of saying night sweats.

† De Quincey’s Life and Writings with Letters. By H. A. Page. New York: Scribner, Armstrong and Co. 1877.

serves:—"These symptoms indicate, in the first instance, severe nervous irritation or gastrodynia, with, I believe, a low inflammatory condition of the mucous coat of the stomach, proceeding at times to ulceration; not specific ulceration of a cancerous character, but the simple gastric ulcer, capable of cure under treatment and favorable conditions, yet liable to recur under any error in diet."

DR. LUNSFORD P. YANDELL, JR. AND THE LOUISVILLE MEDICAL NEWS.—With the month of January Dr. Galt retires from the editorial staff of the Louisville Medical News, and is succeeded by Dr. L. P. Yandell, Jr. Dr. Galt will always have the hearty regard and esteem of those who know him. Dr. Yandell needs no introduction to our readers or to the profession. His valuable contributions to the American Practitioner, even if he had done nothing before or beside—and he has done much—have made his name familiar to the reading physicians of the country. Increase of fame and of usefulness will assuredly result from this new position to which he brings accurate scholarship, diligent study, and the wisdom which comes from large professional experience. The News, with Dr. Cowling—one of the most brilliant writers in the editorial ranks, and one of the most vigorous thinkers in the profession—and Dr. L. P. Yandell, Jr., as editors, must meet with continued success.

MEDICAL EXPERTS.—The following opinion has been affirmed:—A physician, like any other person, may be called to testify as an expert in a judicial investigation, whether it be of a civil or criminal nature, without being paid for his testimony as for a professional opinion, and upon refusal to testify, is punishable as for a contempt. (Supreme Court of Alabama.)

TO CONTRIBUTORS.—Papers have been received from Dr. G. Durant, of New York; Dr. L. P. Yandell, Dr. Cheatham, and Dr. J. M. De Rossett, of Kentucky; Dr. David Prince, of Illinois; Dr. J. I. Rooker, of Indiana, and from Dr. Cannon, of Wisconsin.

THE AMERICAN PRACTITIONER.

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Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

PULMONARY CONSUMPTION.*

BY GHISLANI DURANT, M. D., PH. D.

Member of the American Medical Association, Member of the Medical Society of the County of New York, Fellow of the New York Academy of Medicine, Etc.

“To give a careful collection and comparison of the latest views of theory and practice on pulmonary consumption,” which have been given to the public during the last decade, would be impossible in an essay, so numerous are they. But putting aside the obsolete views, the field narrows itself considerably.

In treating of an affection which, from the earliest times, has engaged the attention of the greatest intellects in the profession, I will take it for granted that the usual clinical order, of cause on the one hand and effect on the other, is already well known to any physician, and therefore does not need recapitulating here. Instead of occupying the narrow limits of

*This essay was awarded a gold medal by the Alumni Association of the Medical Department of the University of New York in 1877.

this paper with anatomical details which may be found in any text-book, I will endeavor to confine myself to the practical side of the question, giving all the modern views, of which clinical history supported by observation has shown the truth, and thus arrive at a correct estimate of the pathological states, the necessary basis of all therapeutical indications.

Writers upon pulmonary consumption vary in their ideas of the nature of this disease, as their ideas in histology or pathology vary, though the latter is after all the starting-point of all the discussions. It is fortunate for the consumptive that there is a better agreement among his physicians at the bedside, than at the table of the pathologist. Usually the autopsy ends all discussion. As regards phthisis, on the contrary, "by the bedside there is a proper accord and understanding; the diagnosis, the treatment, and unfortunately the prognosis, are all the same; but discord and misunderstanding ensue immediately in presence of the diseased lung." (Grancher.)

Some regard tubercle as a specific lesion; others acknowledging that there is about it something of a specific nature, seek this—some in a specific cause, some in a specific product or growth in the lungs. Others still resuscitate in a measure the idea of Broussais, and regard tuberculous phthisis as a disseminated pneumonia; some regard granular and caseous tubercles as identical, while others think they are totally different.

Yet should anything be less a subject for controversy than an elementary form, or the presence or absence of an anatomical element? Aided, as the pathologist is to-day, by powerful optical resources, it would seem that his decision would be final, and yet all is contested and contestable. That which is strongly asserted by one, is as strongly denied by another; the elementary lesions, the pathological products which all observers acknowledge to be present, vary as they are seen through the microscopes of the different observers; and the pathological products which are regarded by one class of observers as the result of an ordinary inflammation, are thought by another to be those of a special cause.

Among the latest and most definite views on tubercle, and ones that it behooves us to consider, are those of *Virchow*. The author of *cellular pathology* regards tubercle as a new growth, and classes it among the lymph tumors. He shows that tubercle, from its very beginning, is composed of cells; and that it is developed either from connective or some closely allied tissue, such as false membrane, fat, or the medullary tissue of bone. It presents itself under two forms—the one cellular, the other fibrous; but these have so many features in common as unmistakably to imply their oneness; indeed, the fibrous is but the cellular form, slightly modified during its growth by external circumstances.

Tubercle rarely occurs singly. It is almost without exception multiple, occurring in nest-like groups close together. It increases in size by surface accretion, new nodules developing in the tissue around the older ones; and since this growth can take place on all sides about a center in the parenchyma of solid organs, the final form attained is round or roundish.

Whenever this growth of tubercle is unobstructed it presents a cellular structure, and a section will exhibit different stages of development:

First. There are the young embryonic elements, the cells which may be called indeterminate, such, for example, as those of the connective tissue in the colium proper.

Second. There are the determined or special cells and inter-cellular developments, which by their shape or arrangement give its particular character and form to the tissues to which they belong, as bone-cells to bone, cartilage-cells to cartilage, and tubercle-cells to tubercle.

Third. There are the forms presented by structures in process of disintegration, towards removal *e situ*, such, for example, as the dried, broken and granular upper scales of the epidermis, the degenerated fatty cells from mucous membrane, and the central fine granules of the tubercular débris.

These three ages of development are all most distinctly visible. Outermost lie the connective tissue cells in process of endogenous proliferation; next come the highest aimed

structures which the growth reaches, the cell forms most characteristic of it, which are disposed in an irregular ring round the center, and which doubtless multiply themselves by fissiparous development; and lastly, placed more centrally in the examples offered by tubercle in the stroma of solid organs, granular amorphous bodies can be seen, which might not be inaptly termed the products of the eremacausis or smoldering combustion of animal tissues. Commensurately with the age of the growth, these fine granules and fatty compounds, significant of the stage of decay, encroach upon and predominate over the cellular structures.

Virchow further asserts that when a caseous or cretaceous mass is presented for our examination, we are not justified in deciding upon its pathological nature, from our knowledge of its mode of origin alone. If there be, neither in nor about it, no appearances which correspond with the structures above described, then we have no right to pronounce it tubercle.

From the analyses of a number of observers, Bennett* draws the following conclusions:

First. That tubercle consists of an animal matter, mixed with certain earthy salts.

Second. That the relative proportion of these varies in different specimens of tubercle. That animal matter is most abundant in recent, and earthy salts in chronic tubercle.

Third. That the animal matter certainly contains a large amount of albumen. Some chemists have also detected casein, the existence of which is probable; others gelatine, the presence of which is more doubtful. Fibrin and fat exist in small but variable proportion, as a constituent of tubercle, the latter increasing as the disintegration of the tubercle progresses.

Fourth. The earthy salts are principally composed of the insoluble phosphate and carbonate of lime, with a small proportion of the soluble salts of soda.

* Bennett, J. Hughes. Pathology and Treatment of Pulmonary Consumption. Edinburgh, 1859.

Fifth. That very little difference in ultimate composition has yet been detected between recent tubercle and other albuminous compounds.

If, from the histological facts previously stated, we seek to deduce the nature of tubercle, it can scarcely be doubted that it is an exudation of the liquor sanguinis, but one which presents marked differences from the simple or inflammatory exudation on the one hand, and the cancerous on the other.

The peculiarity of phthisis, as considered by Bennett, is that an excess of acidity exists in the alimentary canal, whereby the albuminous constituents of the food are rendered easily soluble, whilst the alkaline secretions of the saliva and of the pancreatic juice, are more than neutralized and rendered incapable either of transforming the carbonaceous constituents of vegetable food into oil, or of so preparing fatty matters introduced into the system as will render them easily assimilable. Hence an increased amount of albumen enters the blood, and has been found to exist there by all chemical analyses, while fat is largely supplied by the absorption of the adipose tissues of the body, causing the emaciation which characterizes the disease. In the meanwhile the lungs become especially liable to local congestions, leading to exudation of an albuminous kind, which is tubercle. This, in turn, being deficient in the necessary proportion of fatty matter, elementary molecules are not found so as to constitute nuclei capable of further development into cells; they, therefore, remain abortive, and constitute tubercle corpuscles. Thus, a local disease is added to the constitutional disorder, and that compound affection is induced which we call phthisis pulmonalis, consisting of symptoms attributable partly to the alimentary canal and partly to the pulmonary organs.

After characterizing the dogma of Laënnec as "an hypothesis which has been overthrown by the later investigations in pathology," (page 2), *Niemeyer** starts with the assertion that "everything which, since the time of Laënnec, has been re-

* Clinical Lectures on Pulmonary Phthisis. Translation. New York, 1868.

garded as infiltrated tubercle of the lung, is the product of chronic and especially catarrhal pneumonia," (page 3), and makes every fact yield to this *a priori*. The so-called catarrhal pneumonia—the caseous, tubercular, epithelial, disseminated, and chronic pneumonia of other authors—the result of an accident, as a cold or other local irritant, he regards as an evil to be feared above all, since it possesses the singular property of determining tubercle, not only in its vicinity but throughout the entire organism. It is, by the softening and expulsion of the products of this pneumonia, that cavities are formed, and that phthisis, as Niemeyer understands it, is produced. But, he adds, "the greatest danger for most phthisical patients is that they may become tuberculous" (page 19). We must then always bear in mind that "a tuberculosis may be developed in the course of a pulmonary phthisis, caused by pneumonic processes" (page 98).

But we are not to regard this complication of caseous pneumonia by tubercles as an accident, for "we are forced to admit a causal relation between the tuberculosis and the nutritive disturbances, which ordinarily precede the same. We are entirely confirmed in this causal relation, when we consider the distribution of the tubercles in the lungs of phthisical patients. If there are but few tubercles present, they are found for the most part entirely in the neighborhood of cavities or caseous masses; and if they are scattered over the whole lung, we can not as a rule but see that their extension has proceeded from those points, because there we find the most numerous, and as it appears the oldest nodules" (p. 22). Nothing can be more definite than this statement.

We must consider very carefully the nature of this catarrhal pneumonia, since it not only produces tubercles but is itself produced by them. Niemeyer concedes the latter point, in deference "to the prevailing views," and acknowledges that in a certain number of cases, "*the development of tubercle has preceded the pneumonic processes*, and that the existing cavities are due in part to the softening and emptying out of tubercular conglomerations, and have been gradually enlarged by the

softening and throwing off of tubercles, which have continued to be found in their walls" (page 7). Tubercles and catarrhal pneumonia, then, behave in exactly the same way.

We have just been told that individuals suffering from catarrhal pneumonia will, sooner or later, develop tubercles, and that tuberculous subjects will contract catarrhal pneumonia. "Since we have already made the assertion that acute catarrhal pneumonia may, even in persons of previously healthy lungs, lead to caseous infiltration, we must add that those persons who have already previously suffered from catarrhal pneumonia resulting in condensation, and who have caseous masses or cavities in the lungs, are much more liable to have subsequent attacks of acute catarrhal pneumonia take the same termination. In the description of the different forms which phthisis can assume, we will mention cases in which the patients are attacked again and again with acute catarrhal pneumonia, and in which every new attack of this disease leads to an acute extension of the condensation and destruction of the lung, until finally the patients succumb to a last attack, or die of secondary tuberculosis" (page 14).

Even if we admit that pneumonia is entirely different anatomically from tubercle, would it be a sufficient reason for separating it from the other, and making it originate from an entirely different cause? There is no better refutation of Niemeyer's theory than the one he gives himself, and gives most clearly and concisely. "The frequency of this complication" (tubercles and caseous products in the lungs of phthisical patients), "and the evident dependence of the tubercular development on the morbid nutrition in the lung, has doubtless materially assisted the formation of Laënnec's doctrines. It was not very difficult to draw, from this condition of things, the conclusion that the inflammatory process, and the morbid formation appearing in the form of miliary nodules, were to be considered as different degrees or stages of development of one and the same disease. Moreover, the different anatomical appearance of both of these forms of morbid nutrition was by no means opposed to this construction. If we have no

hesitation in referring to one and the same constitutional disease, the syphilitic inflammation and those syphilitic growths diagnosed gummy tumors, then we should make no objections when the pneumonic process and the tuberculous formations, which are so often together, are referred in the same manner to the common source of a general constitutional disease" (p. 22).

After stating (page 135) that it was upon ideas advanced by himself, as early as 1856, that Niemeyer based his deductions regarding consumption, *Buhl** gives as the most important process of all, the foundation, the *causa proxima* of phthisis, *parenchymatous* or *desquamative pneumonia*, with its differences in course, grade, and form. Immediately following this are the closely related forms of *peribronchitis*. Other inflammations of the lungs, as compared with these, are not only far behind, but their causative relation is even denied.

I could not give a better resumé of this author's views than the following:

"If now you review the symptoms of pulmonary phthisis, you will see that it is not possible for me to agree with the clinical pictures which Niemeyer has drawn, for they depend on false conceptions.

"In the *first* place, he declares that a croupous pneumonia, in which the fever lasts over the second week, has run into a cheesy pneumonia. I have sought to show that this never occurs; but that such a case was a desquamative pneumonia from the very beginning, and should have been diagnosticated in the very first days by a microscopic examination of the sputa.

"*Second*. He holds that pulmonary hemorrhage is primary, and the cheesy pneumonia the result. I have endeavored to point out that a pulmonary hemorrhage can not cause a cheesy pneumonia; and that in those cases where phthisis is observed to follow hemorrhage, the beginning of the former must be referred back to a point before the advent of the first bleeding.

* *Buhl*. Inflammation of the Lungs. Tuberculosis and Consumption. Translation. New York, 1874.

“*Third.* He presupposes an acute bronchial catarrh. I have effectually shown that phthisis can not arise from catarrh, and that in this case, one of the two deep-seated and severe diseases, either desquamative pneumonia or peribronchitis, have been confounded with the catarrh.

“*Fourth.* He pictures to us a chronic catarrhal pneumonia. But such a condition does not exist. What Niemeyer called by that name was generally pulmonary cirrhosis, or cheesy lobular pneumonia from peribronchitis” (page 159).

According to *Perroud*,* the elements capable of undergoing transformation into tubercle are the white globules or leucocytes, epithelial cells, fibro-plastic elements, medullary cells, and blastema. The same author, in studying the process of tuberculization, how it is that certain elements are transformed into tubercles, taking into consideration the most recent developments, both microscopical and chemical, has arrived at the conclusion that the first step toward this change is the death of the normal tissue, and following this decomposition of the effete material. Nature now attempts the removal of these products; the fatty portions are, in a measure, separated from the proteine elements; alkaline fluids are poured out to form a soap with the fatty materials, in the same manner as the dead fetus *in utero* is removed, and as fat is found in the cadaver. Certain portions are thus rendered capable of absorption, and there remain dessicated mummy-like elements, to which are added, later on, pigment granules and calcareous salts.

Unfortunately, however, this reparative process but seldom occurs. The neighboring tissues, irritated by the presence of tuberculous masses, pour out their secretions abundantly, and the tubercles instead of drying, swell up, and increasing greatly in size assume the appearance of pyoid globules. This is what is called the softening of tubercle. When the disorganization has reached a more advanced stage, only granulations, the remains of the tuberculous histological element, are seen.

* De la Tuberculose et de la Phthisis Pulmonaire. Prize Essay. Paris, 1861.

The following aphorisms, in respect to tissue metamorphosis, are given by *MacCormac*,* as illustrating the production of tubercle:

A ceaseless process of integration and disintegration goes on amid the living organism, to which we apply the term tissue metamorphosis.

Of this metamorphosis there are two kinds—one direct, the other retrograde; one the integration, the other the disintegration.

Direct metamorphosis is the formation of living tissue, of blood, of bone, of nerve, of flesh.

Retrograde metamorphosis is the disintegration, after vital action, of living tissue, of blood, of bone, of nerve, of flesh, and its conversion, through the medium of the blood, into interstitial or metamorphic waste.

Food supplies the ingredients of the one; the used tissues constitute the material of the other.

Waste and supply are mainly, though not always, coequal. If, however, the waste do not correspond with the material supply, or the material supply correspond with the waste, disease or death must, in no long period, sooner or later follow.

In any and every case, new material must replace healthily, the old material. But there can be no healthy substitution of new material for old material, if the oxidation be insufficient.

The waste carbon, and to a certain extent the waste hydrogen, is mainly eliminated through the instrumentality of the lungs. If it be not eliminated, it is death.

If the waste or retrograde metamorphic tissue, on the other hand, be not got rid of adequately, it is likewise death, sooner or later death, from the retention of that waste.

Tubercle, then, with all the diseases and all the mortality that accrue from it, is entirely ascribable to the imperfect discharge, in other words to the arrest, of the metamorphic waste. For tubercle is but the retained carbonaceous waste, while conversely, the retained carbonaceous waste is tubercle.

* Fifty Aphorisms, read before the Glasgow Medical Society, March, 1864.

We can sum up MacCormac's work on consumption, as the author does himself, in half a dozen lines:*

"Wherever the air habitually respired has been respired, in whole or in part, before, there, tubercular deposits are found; and wherever the air habitually respired has not been respired, in whole or in part, before, there, tubercular deposits are impossible, and consumption and scrofula are unknown."

Villemin† returns to the views of Laënnec and Andral regarding the unity and specific nature of tuberculosis.

The matrix of the different varieties of tuberculous matter, is the different kinds of connective tissue. Caseous matter, though oftenest found in tuberculous deposits, does not belong exclusively to them.

The lymphatic tissues—the closed follicles, ganglia, adenoid tissues, spleen, etc.—are very frequently the seat of tubercles.

The tubercle of the osseous tissues is the result of cell proliferation in the marrow.

Tubercle in the lung has its seat in the fibrous interlobular connective tissue, but it most frequently fills as well the pulmonary vesicles, originating in that case from a proliferation of a connective tissue in the membrane which forms the walls of the alveoli. The intravesicular tubercles undergo, perhaps more frequently than elsewhere, a premature retrograde metamorphosis.

The tuberculous products seem to engender in their neighborhood an infectious emanation, which gives rise to a progressive extension of the morbid process, and development of new granulations in the vicinity of the older nodules.

Fatty liver seems to be a direct effect of tuberculosis.

An alteration of the lymphatics, similar to that occurring in glanders, has been observed in tuberculosis.

A resumé of the author's opinions is given in the following propositions:

* Consumption: its Prevention and Possible Cure. Second Edition. London, 1865.

† Etudes sur la Tuberculose. Paris, 1868.

1. Like zymotic diseases, tuberculosis is but seldom met with on high altitudes.

2. The disease increases proportionally with the aggregation of masses, occurring most frequently, therefore, in large manufacturing and commercial cities.

3. It attacks individuals who live within confined precincts, as in convents, prisons, barracks, etc.

4. It is rarely found among those living apart, or leading a savage or nomadic life.

5. Tuberculosis, so common among troops living in barracks, rarely occurs during a campaign.

6. When, in small ill-ventilated houses, there are many dwellers, there will be developed, as a consequence, several cases of tuberculosis.

7. Phthisis, formerly unknown among the Indian tribes of America and the inhabitants of Oceanica, has become, since the advent of the European among them, their great destroyer.

8. The phthisis of bovines, like that of man, is multiplied by confinement and aggregation.

9. The antagonism which seems to exist between malarial fevers and phthisis, is due to the fact that malaria occurs chiefly among the inhabitants of sparsely settled districts.

10. The contagious character of phthisis has been affirmed in all ages, both by popular credence and by careful observers.

11. Tuberculosis is developed and propagated under an assemblage of conditions analogous to that producing zymotic diseases. Hence, we regard the cause as specific, and as multiplying and transmitting itself under the above conditions.

*Boyer** regards tubercle as an accidental product, formed by an osmose through the capillaries of a plasma containing an excessive amount of gelatinous moleculi, which have a marked tendency to absorb phosphatic salts. Tubercle develops by epigenesis in the midst of tissues pushed away, but not destroyed. Any cause which produces pulmonary congestion

* *Guérison de la Phthisie Pulmonaire.* Paris, 1868.

may occasion a deposit of gelatiniform granulations in the respiratory organs. Pulmonary phthisis is characterized by the presence of tubercles in the lungs, the softening of the tubercles producing cavities. Calcareous and cretaceous concretions are the same alteration, but in different stages of solidification. Bones, before assuming the cartilaginous state, contain the same elements as incipient tubercle, albumen, fibrin and gelatin; later on, the same principles as crude tubercle. Tubercle, like bones, passes through three stages of growth. The blood contains all the chemical elements of the organism, at all periods of life; it contains gelatine and calcic phosphate in definite proportions. Phthisis being due to an insufficiency of calcareous salts in the blood, give calcic phosphate and carbonate, and soda bicarbonate, and you cause induration of the tubercles.

Dr. Williams,* of the Brompton Hospital, recapitulates as follows: "Pulmonary consumption arises from a decline or deficiency of vitality in the natural bioplasm or germinal matter; and this deficiency manifests its effects, not only in a general wasting or atrophy of the whole body, but also in a peculiar degradation (chiefly in the lungs and lymphatic system) of portions of this bioplasm, into a sluggish, low-lived, yet proliferating matter, which, instead of maintaining the nutrition and integrity of the tissues (which is the natural office of the bioplasm) clogs them, and irritates them into a substance, which is more or less prone to decay and eventually involves them also in its own disintegration and destruction. This degraded bioplasm, which I will call phthinoplasm—(from 'phthisis,' I waste, a wasting or decaying forming material)—may be thrown off locally as a result of inflammation, or it may rise more spontaneously in divers points of the bioplasm in its ordinary receptacles, the lymphatic glandular system; and then it commonly appears in the form of miliary tubercles, scattered through the adenoid tissue of the lungs."

* *Pulmonary Consumption.* London, 1871.

Inflammation is regarded by *Dr. Loomis** as the great element of destruction in pulmonary phthisis. He further says, "that the varying proportions in which the different types of inflammatory changes exist in different causes, combined with their different stages of evolution, account for the varying appearances presented by lungs in one case of phthisis as compared with lungs in another. That all these changes can be arranged under the head of inflammation, and that they only differ according to the primary seat and character of the inflammatory process."

In the one class of cases, the primary changes are in the cavities of the alveoli and bronchi, and are epithelial and cellular in their nature—*catarrhal phthisis*.

In another class of cases, the primary changes occur in the bronchial and alveolar connective tissue; the connective tissue hyperplasias may be nodular, linear or massive—*fibrous phthisis*. In still another class, the primary changes may occur in the lymphoid elements of the lung—*tubercular phthisis*. All these three forms may occur either separately or together.

In his last work, *Pidoux*† considers pus, tuberculous and caseous matter, as three distinct yet analogous products. He regards the second and third as less organized than the first, their life very short, and therefore their multiplication correspondingly rapid. They are without blood vessels and nerves, poorly formed, and prone to degenerate.

Histologically, pus-cells and the white blood globules are identical; they are leucocytes—the sarcophytes of Williams, and bioplasts of Beale. Both present themselves as round cells, composed of a thin layer of cell substance, inclosing several nuclei. They differ only in that the latter have in themselves, and surrounding them, the elements necessary for their growth and development into organic tissues, while the former have, in and around them, the elements which will

* Lectures on Diseases of the Respiratory Organs, Heart and Kidneys. New York, 1875.

† Etudes Générales et Pratiques sur la Phthisis. Prize Essay. Paris, 1874.

cause them to undergo retrograde metamorphosis, to descend in the organic scale; the one of necessity lives, the other dies.

Therefore, it is only as embryos that pus-cells and white globules resemble each other. Hour by hour, as they follow their opposite courses, the difference between them becomes more marked. In the one which is to become a pus globule, the number of nuclei increases; in the leucocyte, which is to constitute perhaps a portion of normal tissue, possibly in the vessels a red blood corpuscle, their number diminishes.

As the pus globule progresses in its downward course, the nuclei increase in number and decrease in size. Nucleoli, if present, are only outlined, often imperceptible; thus, at the best, the life of the pus globule is short. If, however, they are rapidly developed, the albuminous fluid in which they float is absorbed, the cells lose their rounded shape, shrivel, dry up, and appear as a confused mass of irregular corpuscles, and becoming a cheesy-like mass, it receives the name caseous.

The change can go a step further, and the calcareous succeed the caseiform. This may be because the mineral matters are the only ones that can not be absorbed, or that they are the last deposited.

As the caseous product is the residue of the retained pus, in which all cell proliferation has ceased, so it is the ultimate and almost constant phase of tubercle, which, like pus, is born only to degenerate and die.

Tubercle may be regarded as an embryonic cell, which, its development being suddenly checked, becomes atrophied and reduced to the lowest possible state of vitality. The cells of tuberculous granulations resemble so closely those found in healthy lymphatic ganglia, that it is difficult to distinguish the one from the other. Virchow, who pointed out this resemblance, has called attention to another fact not less important. "If you compare," says he, "the cells which I regard as constituting the tuberculous matter with a normal tissue of the human body, you will see that those cells have the greatest analogy with the elements of the lymphatic ganglia—an anal-

ogy which is neither accidental nor indifferent, since the predisposition of the lymphatic ganglia to undergo the caseous transformation has long been known."

Tuberculous granulations are developed in the beginning at the expense of the connective tissue. For a time they replace the cells of the plastic and fundamental tissue, and all the elements of which it is the matrix; but as they can not finally replace these cells, destruction results. We know already that reparative neoplasms are all produced by an extraordinary proliferation of the connective tissue. Tuberculous irritation either destroys that tissue, or substitutes for it elements which die as soon as born, and so can not reproduce healthy elements as is done in simple inflammations.

Bayle, Laënnec, and their followers, had pointed out the difference between the gray, semi-transparent granulations, and the rounded yellowish mass resembling cheese of poor quality, or a kind of putty, to which they gave the name tubercle. The latter presents itself under two forms—first, as masses varying in size from a pea to a small nut; and, second, as amorphous particles, disseminated throughout the tissues and known as infiltrated tubercle. At that time no essential difference was known to exist between this production and the gray granulation. Both were tuberculous products, and the disease, of which they formed the anatomical elements, was pulmonary phthisis. Reinhardt has since shown that the result of arrested and non-evacuated suppuration presents the same characteristics.

Caseous matter, the solid detritus of pus, and Virchow's fatty transformation of granulous matter, only differ in that the first and second are the product of a retrogressive transformation, while the third is fatty from the beginning, possibly on account of its seat in a muciparous membrane. This would explain why, when the tuberculous irritation has its seat in such a membrane, the caseous product is at once developed, whilst if connective tissue or serous membrane be affected, granulations, formed from atrophied cells, are produced. And, as the elements which make up the connective

tissue are better organized than those of the mucous membranes, and especially those of the pulmonary alveoli, which are of the simplest form, we can easily comprehend why the neoplasms of the connective tissue should have a more perfect and persistent form than those developed in a membrane.

Therefore, the absolute difference found to exist between phthisis and tuberculosis, because the first gives rise to caseiform and the second to granular products (Niemeyer), is anything but demonstrated. There is every reason to believe that, at birth, the cells of the caseous products were organic, and more or less perfectly formed, but suffered fatty degeneration more rapidly than the tuberculous granulations of the connective tissue.

(To be continued.)

NEW YORK CITY.

BATHING, CUPPING, ELECTRICITY, MASSAGE.

A COMPARISON OF THE THERAPEUTIC EFFECTS OF BATHING, OF CUPPING OR ATMOSPHERIC EXHAUSTION, OF ELECTRICITY IN THE FORM OF GALVANISM AND FARADISM, AND OF MASSAGE, IN THE TREATMENT OF DEBILITIES, DEFORMITIES AND CHRONIC DISEASES.

BY DAVID PRINCE, M. D.

It is suspected that each specialist who relies upon one of these four agents, overestimates its relative importance, and that his consequent overpraise leads the general practitioner to despise these agents, all alike, as the hobby-horses of charlatans. It is attempted, in this short paper, to present their modes of action in comparison with each other, and to discriminate the conditions in which one is indicated in preference to another. It is believed that by securing to each its proper therapeutic position, it will have a stronger hold upon public confidence, and will therefore be oftener as well as more intelligently employed.

Bathing is applicable in some of its forms to all conditions. The variety of its applications is attended by a corresponding capability of doing harm where it is intended to do good. It is applicable to inflammatory and febrile excitements with elevation of temperature, when so applied as to abstract heat directly, or so as to favor perspiration and evaporation, thus indirectly diminishing the temperature. It is applicable to cases of arterial capillary contraction and diminished temperature, acting by the direct impartation of heat and by the enlargement of the vessels for the supply of blood. It is efficacious in the removal of cutaneous obstructions to the transudation of effete material; and in wounds it protects the surfaces from the lodgment of the germs of putrefaction floating in the air, and thus acts as an antiseptic. This property may be reinforced by carbolic acid and salicylic acid.

The efficacy of bathing by immersion or by fomentation is such as to give the surgeon little concern, whether an injury is subcutaneous or open through the skin. Such is the antiseptic action of water perpetually changed and of water medicated with these acids and applied to wounds and to erysipelatous inflammations, as to diminish the importance of season and climate, in the estimate of danger. By what bathing is in itself, and by what it is the vehicle of, it occupies an exceedingly large space in the field of therapeutics.

Bathing is made the vehicle of heat and cold, from the utmost limits of endurance to the slightest variation from the existing temperature. When in either extreme, the action upon the nerves is that of a counter-irritant, and the action upon the vessels is to contract them, securing an arrest or a diversion of the flow of blood. When of a temperature near that of the surface, the effects are soothing upon the nerves and relaxing upon the vessels. The saline ingredients of the waters of various natural springs can be closely imitated by the addition of salts artificially prepared, but the charm of travel and of scenery can not be supplied by any artificial device devoid of the mystery of natural healing. A bath impregnated with the saline ingredients of sea-water ought to be as

efficacious as a bath in the sea itself, except that the appeals to the imagination constitute a part of the cure.

The application of hot air impregnated with vapor, simple or medicated, is generally intended to excite free perspiration and the elimination of all material capable of transudation. Mercurial and other medicated vapors are capable of imparting their ingredients to the system through cutaneous absorption.

Cupping, or atmospheric exhaustion, is familiar to every one when applied on an area of three or four inches, but when applied to a whole limb, or to the limbs and the whole trunk, it is chiefly known as it is practiced by some specialists. The amount of blood abstracted from the general circulation is incapable of accounting for the success of ordinary cupping in relieving pain; and from the similarity of the result to that of counter-irritants, this agent must be classed among them. When, however, a whole extremity or any considerable part of the body is made the field for exhaustion, the principle of action changes.

The presence of fluids within the vessels and within the connective tissue, as well as the tendency to the vaporization of gases condensed in these fluids, make, obviously, an influence to enlarge contracted vessels, and to loosen the tightness of contracted or hardened tissues. When applied to the trunk and limbs covering the whole body, except the head and neck, the lungs must be the first to feel the expanding effect, similar to that experienced in the ascent of high mountains, with the same danger of hemorrhage.

Junod's boot, a metallic inclosure for a leg or an arm, the air being withdrawn by an air-pump, has been used many years in France, and is recommended by Brown-Séquard in the treatment of peripheral paralysis. In this country the apparatus is extended so that in one form the trunk (up to the neck) is inclosed, and subjected to atmospheric exhaustion. This is manufactured and sold under a patent, though the chief details of this form of cupping have been previously executed in Europe. The extraordinary expectations encour-

aged by the manufacturers tend to discredit the good results rationally to be expected.

Employed on a large surface, atmospheric exhaustion is a valuable agent with a limited field of application.

Electricity, in its therapeutic relations, is now known under three names, employed to designate different modes:

1. Franklinism, or static electricity, denotes the agent as developed by friction. So little therapeutic use is now made of this form, that it will not be considered.

2. Faradism, or induced electricity, named after Faraday, its chief discoverer, is now more used than any other form, chiefly on account of the cheapness of the apparatus by which it is developed, and the very sensible effects of its application. If a careless writer speaks of using electricity, it may be assumed that this is the form understood.

3. Galvanism is current electricity, as developed by chemical action.

In accordance with these terms are the names of the therapeutic processes. Faradization and galvanization are capable of affecting the deepest parts as well as the most superficial, and the most primary acts of tissue change. Functions sluggishly performed can be stimulated to greater activity whether the defect be in muscular motion, nervous sensation, vascular supply, quantity and character of secretion, or the quality of the nutrition. The application is therefore very varied, but not without danger of misapplication and injury.

Faradization is the name adopted for the application of the induced current, which must be in shocks of rapid succession. The beginning and the end of each brief electric flow is attended by a shock, by which the muscles are thrown into a tetanic tension, and the sensitive nerves excited to their natural function.

Galvanization is the name adopted for the application of the continuous current obtained by the reinforcement of cells, the energy of one adding to that of the next, until a propelling force is obtained sufficient to overcome the resistance of the body. The continuity of the current may be interrupted

by the hand or by automatic mechanism, but its chemical power remains the same. When the force of the current in relation to its diffusion is moderate, a tendency to disintegration is produced with an increased vascular activity.

The most probable explanation of the relief of pain is, that the pain itself depends upon anemia of the nerves involved, and that the increased supply of blood, implying an expansion of the vessels, brings the function of the nerves to a higher level than that of pain. This is rendered probable from the experience, that pains attendant upon conditions of inflammatory congestion are liable to be aggravated by galvanization. Such is the tendency of the galvanic current to diffusion, in passing through parts of considerable depths, that a strong force is necessary to produce any marked effect. This implies that the current is spread out over several square inches of surface, so as to be borne without inducing the destructive action upon the skin dependent upon the confinement of the current to a small space.

On the other hand, when the therapeutic indication is the absorption of tissue, the current is confined to a small space by means of needles. Whether the points are applied upon the surface or introduced at whatever depth, a decomposition takes place, the oxygen and the acids going to the positive pole, and the hydrogen and the alkalies going to the negative. The one or the other set of results of decomposition can be secured by substituting a wet sponge for one of the needles.

If it is intended to produce the internal development of hydrogen, for minute separation of the constituents of formations, as in tumors and neoplastic deposits, the negative needle is employed, while a sponge upon the surface makes the positive pole, or center of direction for oxygen and acids. The needle inserted into the part to be electrolyzed may be an ordinary steel sewing-needle. This constitutes the negative apex of a cone, the positive base of which is the area of surface covered by the sponge, which, for the best action, should be placed upon the part of the surface opposite the

point of the needle. The electric force crowds to the point of the needle, making it unnecessary to insulate the metallic surface.

If oxydation and coagulation are desired, as in the treatment of aneurism by coagulation, the sponge is made the negative and the needle the positive pole. In this case the needle must be of platinum or gold, so as not to oxydize; a thin plating is peeled off by the current, and is therefore worse than useless. Between the extremes of destruction of tissue by the needle with a greatly reinforced current, and the feeblest molecular change secured by a current of feeble power, are all the grades of therapeutic application. Not to mention the surgical employment in the heated platinum wire by a current of large quantity, or in the needles introduced near each other for destructive electrolysis with a current of high tension, the range of therapeutic application is very wide.

The power of the interrupted current, either galvanic or faradic, to excite contractions in paretic muscles, and thus to aid in restoring their lost function, is well known, but the power of restoring sensation is not generally recognized. An observation upon this point was made upon the back of the hand of a gentleman, whose hand had been paretic for several months from what had been supposed to be a rheumatic attack. After partial restoration of function under the employment of the four agents—bathing, cupping, electricity, and massage—a careful observation was made at one of the sittings. The faradic current was made to pass through the insensible part without being felt by the patient. In a few seconds sensation was developed, and in a few minutes became uncomfortably intense.

Bathing and electric excitations are especially agreeable companions in the relief of a great variety of irritable conditions. The electric bath, whether topical or general, is a combination in which each agent favors the action of the other, in cases in which it is not intended to act primarily upon the surfaces. The effect of water is to diffuse the current, and to enable it to pass through the skin with very little

sensation, so that a patient thinks he is having a feeble application when it is really strong.

The combination of bathing is generally made with the faradic current for general application. It is not uncommon, however, to apply the galvanic current while a foot or a hand is in a bath, which is made one of the poles of the current. This method can be reversed, making a small region out of the bath the seat of one pole, while the general immersion gives the other pole a wide distribution.

Massage is now adopted as an arbitrary word, signifying friction, stroking, kneading, tapping, rolling, pinching, and passive movements, whether done with the patient awake or under ether; executed by the hand or by machinery, light in degree or carried to the extent of rupturing adhesions and elongating contracted muscles by short vibratory movements.

The principles are old, though the word employed to comprehend them is modern. The employment of friction by the hand, is a domestic procedure, in pains and cramps, so ancient and so universal as scarcely to be mentioned in systematic writings.

Friction is made by a rapid movement with light pressure, intended to develop heat in a part whose circulation is torpid from external cold or from internal causes; and when done by machinery, the presence of flannel or silk between the friction pad or brush and the skin, may be supposed to develop a static electric excitation favorable to the restoration of the function of impaired nerves. The efficient employment of friction by the hand is very tiresome, and when employed in a systematic way to improve a chronic condition a machine is almost indispensable.

Stroking is a combination of friction and pressure, generally secured by a movement of the hand in the direction of the cutaneous hairs. This method of massage is especially applicable to the back and to the voluminous portions of the extremities. If it is intended to give prominence to the element of friction, the hand of the masseur is either dry, or wet with alcohol, or some other penetrating or quickly evaporat-

ing liquid; but if pressure is intended to be predominant, the hand is lubricated with some oleaginous substance, which enables it to glide with the least resistance. As the hand passes slowly over the parts operated upon, a wave is produced which secures an alternate emptying and filling of the vessels of the stagnant organs. The influence of this method is felt not only in the parts subjected to immediate pressure, but in the adjacent organs. This is illustrated by the relief of stroking in lumbago and other forms of backache, in which the area of the comfort is more extensive than that of the application.

The process of kneading is the production of a pressure by the application of the hand or the closed fist, without gliding and in a gentle manner, over a portion of the body in alternation, as a baker kneads his dough.

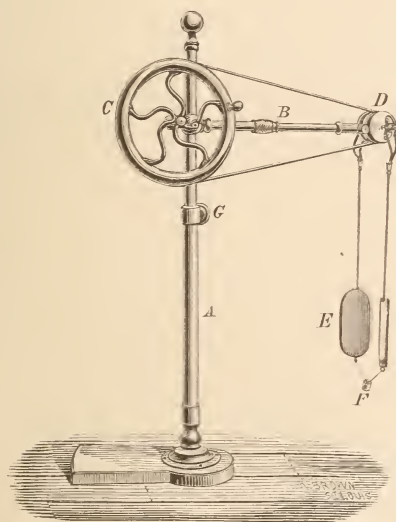
Tapping is best secured by machinery, as it is very fatiguing to keep up a sufficient prolongation of rapid and light touches by the hand. Rolling, however, being a slower proceeding, is easily effected by the hand. Pinching between thumb and fingers is generally employed for the purpose of securing reflex action.

The various passive movements may be executed by the hand, but they are more regularly and efficiently produced by machinery. The latter can be moved by a stupid person, by steam or by a water motor, leaving the operator free to guide the machine without fatigue, and thus to secure the full benefit of the application of the remedy. While it is possible to do by hand nearly all that can be done by machinery, it is safe to say that the use of the hand involves too much fatigue for general and faithful employment. Rapid vibrations or oscillations are beyond the power of the hand to accomplish. The acceleration of motion effected by machinery is necessary to a satisfactory result. The passive movements in imitation of the natural movements require skill when performed by the hand. The manipulation of the fingers, especially the stroking and kneading processes, can best be done by the hand of the operator. The movements of the fingers in the direc-

tion of flexion and extension, are best done by machinery. The rapid oscillations which are found of greatest benefit, can not be accomplished by the unaided hand.

The benefit seems to be derived from the acceleration of vital changes, similar to those which follow active exercise with those who are able to take it. A limb, useless through fancy, rigidity or palsy, has its tissues shaken by short and rapid vibrations, and there comes a more voluminous supply of blood, and a more responsive or a more equable innervation.

The most important applications of massage can be secured by the machine represented in the accompanying wood-cut:



A—A stand, capable of being lengthened, so as to control the height of the working portion of the apparatus.

B—Horizontal shaft, capable of being lengthened so as to keep the hand tight.

C—Wheel propelling the band which carries the small wheel.

D—The wheel which moves two friction pads.

E—Pads with wood foundation and leather-covered cushioning. In operation, those pads are covered by some fabric capable of being washed. One pad may be used alone, or it may be substituted by a brush.

F—An elastic rubber connection for controlling the position and relation of the pads.

G—A set screw, to hold the working part of the machine at a proper height.

A vibratory attachment for hand or foot is also run by the small wheel which carries the friction-pads, the latter being detached and laid aside.

The *Manipulator*, a machine for massage invented by Dr. George H. Taylor, of New York, and manufactured by Wood and Co., No. 17 East 58th street, is a machine of very varied adaptation. It is capable of being run by hand, and of accom-

plishing most of the work capable of being done by extensive machinery requiring steam power.

The introduction of machinery marks a new era in the employment of this therapeutic agent.

In a large portion of the chronic disabilities of the extremities, a contraction of the arteries is a marked condition. The supply of heat becomes insufficient to resist the temperature; new material is not readily laid down to take the place of that which is effete; hence, there is emaciation of muscles, of vessels and of connective tissue. The diminution of volume and the density of the structure of the connective tissue, result in stiffening of the joints, the surrounding loose tissue acquiring the hardness of natural ligament, in some instances resisting with more force than the strength of the adjoining bones, which latter become emaciated in substance though not diminished in size, through the same lack of supply of nutritive material. The nerves share in the atrophy of the connective tissue, the medulla becomes compressed, resulting in hyperæsthesia with diminution of proper function. Sometimes anæsthesia occurs, and between these extremes are various forms of perverted sensation. The motor function exhibits an equal variety of failures and perversions on a lower level of nutrition than that which gives it its natural trophic action. The skin shares in the same atrophy, its arteries diminishing and its veins becoming obliterated, the surface acquiring the appearance of cicatricial substance with a shining aspect.

This assemblage of conditions may be peripheral, or the sequel of an injury, or other local cause, on the one hand; or, on the other hand, central, the result of changes in the nervous centers, in consequence of which the arteries are made to contract under the irritation conveyed through the nervous distribution.

The arterial and the nervous systems react upon each other, the diminution of arterial blood lessening the nutrition of the nerves, and the consequent perversion of the nervous function inducing an increased contraction of the arteries. The influ-

ence of defective supply of arterial blood is illustrated by what is said of some devotees in India, who carry an arm elevated and deprived of its proper movements for a long time. The ascent of the blood in the arteries is retarded by the force of gravity, and its descent in the veins is favored, so that the limb emaciates and stiffens. The same result, in a minor degree, occurs as an incident to the treatment of diseases and injuries in which immobility and an elevated posture are preserved for many weeks. In these cases, the increased accumulation of blood attending the dependent posture becomes painful, and the diminished capacity of the capillaries to transmit the blood, and of the veins to return it, result in the effusion of serum, producing swelling and pitting, which are slow in being removed.

The recovery in such cases is generally greatly retarded by the unwillingness of the patient to submit to the pain attending the dependent posture, and the movements, the pressures, and the frictions, which should be employed to induce a better vascular supply. The heat and cold alternations by bathing, the atmospheric exhaustion or cupping, and the electric excitations, are all painful except in those conditions in which there is palsy of sensation of a durable nature. This explains the reason why so much advantage results from the occasional etherization of a patient whose fortitude is not equal to the emergency.

The treatment of diseases of this class is the opposite to that adapted to conditions of an inflammatory nature. In this latter condition the arteries are dilated, permitting too much blood to flow. Here the elevated posture, rest and arterial sedatives are appropriate, while in the former condition all modes of activity are useful.

The point of uncertainty with regard to the class of therapeutic agents most appropriate, is in the border-land between active inflammation and the passive condition which follows. There is too much blood in a part which is the seat of chronic inflammation, the vessels being both too large and too numerous. If too much activity attends the treatment, the acute

form of the disease is reproduced and great harm is done. All forms of massage are more likely to be followed by injury than is the employment of cold and heat in quick alternation. The agent next to temperature in bathing, which is most likely to contract the vessels without an unpleasant reaction, is the negative pole of a continuous galvanic current. The blood-vessels are inclined to contract at the same time that there is the production of a faint electrolysis, the oxygen and the acids being drawn away from the parts under treatment, very much as the abstraction of oxygen tends to quench a flame, while the hydrogen and the alkalis remain. These latter are incapable of inducing those chemical changes which develop heat, and hence the contra-stimulant effect.

The application of the positive pole would be likely to excite the inflammation to increased action. If, however, the case has passed entirely beyond the condition of heat, indicated by the disappearance of an elevated temperature, the positive pole may be found most advantageous. Where the progress of disease has passed to a condition of fitness for the positive pole of the galvanic current, it may be considered safe to employ massage, lightly and cautiously at first, and with more boldness as it is found to be safe.

An illustration is found in two hands presented for examination on the same day. One was that of an old man, with subluxation of the thumb of three weeks' duration, stiff, hyperæsthetic, and without elevation of temperature. The other was that of a youth of seventeen years, with subluxation of the wrist of several weeks' duration, the temperature being one degree higher than that of the opposite side. In the first case the skin had begun to be slightly glistening, while in the other case the skin presented its natural appearance, and was very slightly rounded up from swelling.

These two cases presented conditions very different, though the injuries were originally sprains. In the case of the youth, the activities were too great, requiring a reduction of temperature by cooling applications, with the greatest possible quietude of the inflamed parts; while the hyperæsthesia in the

other case was best controlled by raising the nutritive activity of the part. The nerves ceased to be painful and extra-sensitive as they became better nourished. Rubbing, pinching, and passive motion, the quick alternations of hot and cold water and electric excitation, all acted in the same direction, the only caution being in not carrying any of these applications too far at any time.

It sometimes occurs that lowered action is attended by *paroxysmal* elevations of temperature. The truly inflammatory action is attended by *persistent* elevation of temperature. In the temperature, more than in any other condition, is found the test as to the fitness of quiet and coolness on the one hand, or motion and heat on the other.

Atrophy with Hyperæsthesia following an injury of the left ankle.—June 9, 1870; Miss C. G., aged twenty years, received a severe sprain and perhaps a fracture of the left ankle, about two years ago. She never recovered, and for the last eight months she has lain in bed. The limb has generally been cold and blue, and subject to occasional attacks of heat, on account of which cold water has been applied, while during the time of coldness hot water has been found most agreeable. The general appearance of the patient is that of emaciation and feebleness, and she has partly lost the use of the right lower limb from long confinement. The foot is slightly swollen, and is everywhere sensitive to pressure. Movement is painful, and all these symptoms are most manifest in the toes. There is no voluntary power of moving the ankle or the toes. The foot is carefully carried upon a pillow, and she lives in constant dread of motion occasioned by the contact of objects, or the movements of her own body.

The interpretation of the case is that there was an injury followed by a condition of inflammation, and that in the process of recovery through the period of chronic subsidence, a hysteroid or other constitutional cause has led to an exaltation of sensitiveness to touch, leading to the quietude which favors diminution or perversion of function. The nourishment of

the tissues is supposed to be insufficient, and were it possible, the natural use of the foot would be the best remedy. The pain attendant upon any disturbance of the limb is sufficient to suppress any voluntary effort. It sometimes fails to be appreciated that when the nutrition of a nerve is below par, it is most painful. In this view of the subject, it is proposed to employ friction, passive motion, faradization, atmospheric exhaustion, iron, quinia and exercise.

The treatment was entered upon with the promise of the aid of the patient. The frictions were made daily by hand thoroughly smeared with lard, and the tolerance always increased with the progress of the rubbing. Junod's boot had the effect of reddening and warming the limb. The tendo-Achillis yielded with difficulty, and a very effective device was a swing in which the patient, in the sitting posture, rested the foot upon a vibrating foot-piece. This served to secure motion in the ankle-joint, and the vibratory motion gradually elongated the tendon. The improvement was very gradual, but without any period of retrogression. The treatment lasted thirty-seven weeks, and the restoration was finally complete.

There is no probability that the foot of this patient would have ever been restored to the function of walking without first disregarding the fear of pain by disturbing processes. The amount of time and perseverance is not appreciated by those who have not paid especial attention to the subject.

October, 1877.—The patient has remained in good health, with a good use of the foot.

Perverted Innervation of right foot following Sprain, Hyperæsthesia and Swelling.—September 3, 1872; Miss L. L., aged fifteen years, sprained the tarsus of the right foot one year ago, producing lameness which did not subside. Six months afterward the tarsus was sprained again, and the patient has not walked since.

Much swelling is said to have been produced by the first injury, and reproduced by the second sprain; but at the present time there is but little swelling, and no elevation of tem-

perature. There is tenderness on movement of the tarsal bones, and upon pressure over the tarsal joints. The foot is intolerant of the weight of the body.

The continuous galvanic current from seventy cells, for thirty minutes, diminished the hyperæsthesia and increased the sense of warmth, without increasing the heat perceptibly by the hand of another person.

September 7.—Galvanization is employed five minutes, and friction by the lubricated hand five minutes each day. Elixir of pyrophosphate of iron is employed for a tonic.

Sept. 14.—Some weight can be borne upon the foot.

Sept. 24.—She plays croquet without crutches.

Oct. 3.—The patient went home, walking without lameness.

April 15, 1873.—A letter states that there have been a few attacks of lameness of short duration.

October, 1877.—The patient made us a visit. She is now married, and has never had a return of lameness.

These two cases were treated without machinery adapted to the purpose of massage. Much labor would have been saved by such apparatus as has been referred to in this paper.

The modes of treatment discussed in this paper are not only not in antagonism with the treatment by medicines, but they are aiding and aided by an intelligent combination. It would be as reasonable to single out any medicine, and undertake to treat a great variety of diseases by it alone, as to apply indiscriminately either of these four remedies.

From this presentation of the subject, it is probable that a water-cure establishment without mechanical apparatus for massage, and a movement-cure without bathing and electric appliances, will come to be regarded as defective in the necessary range of application to the indications in chronic diseases, disabilities and deformities. The narrowest specialty is that of the exclusive treatment of diseases by the vacuum process. Its best effects are forfeited when the treatment is not combined with bathing, faradization, and massage. The cases in which the first is applicable (except ordinary small cupping) afford the indications for the other three.

The expense attending the procuring of a complete outfit for the employment of these agents, and the care necessary to keep them in order, must make it difficult to realize the best results except in institutions.

JACKSONVILLE, ILL.

OLD AGE: ITS DISEASES AND ITS HYGIENE.

BY LUNSFORD P. YANDELL, M. D.

We are able to ascertain with sufficient precision what is the average duration of human life in any given community, but vital statistics have hitherto failed to determine the natural boundaries of man's earthly existence. They were declared by the patriarch to be three score years and ten,* but the patriarch lived himself to nearly twice that age, and yet then, it was said of him, that his eye was not dim nor his natural force abated.† Tables of mortality show that of a hundred persons born in civilized countries, one half pay the debt of nature before they are ten years old; seventy die before they reach manhood or womanhood; and only six of the whole number are alive at sixty. Still it appears that in seven years, that is from 1838 to 1844, seven hundred and eighty people in England alone lived beyond their hundredth year. And Easton, in 1799,‡ published a list of seventeen hundred and twelve instances of longevity extending beyond a century.

The greatest age attained by any individual in modern times was one hundred and sixty-nine years. More extreme cases have been recorded, but Haller, who investigated them with great care, doubted their authenticity. In not a few of these instances, as has been said of Moses, there was no senile decay exhibited in life, nor was any found in the bodies of the old men after their decease. Thomas Parr, the Shropshire

* Moses, Psalm 90. † Deuteronomy, 34: 7.

‡ Jameson's Changes in Human Body, page 298.

peasant, whose history is rendered doubly interesting by its association with Harvey, affords a striking example. He lived one hundred and fifty-two years and nine months, having enjoyed most perfect health until within a few days of his death, which was attributed to plethora of the lungs brought on by change of air and habits. His viscera were all sound and strong, and his heart was large and fat. The learned court physician could find in his organs no reason why he might not have lived many years longer if he had remained at home in the country.

Parr was a poor farmer's servant, and lived by his daily labor. His second wife, whom he married when over one hundred and twenty, reported of him that he never betrayed any signs of infirmity or age during the twelve years they lived together. Charles I. was curious to see so rare a specimen of manhood, and invited the old peasant to London, where he was treated in so royal a manner at court that a congestion of his lungs was induced which soon terminated his life.

Henry Jenkins, a fisherman, who reached one hundred and sixty-nine years, was still able to swim across rapid rivers after he had gone beyond a century.

Draakenberg, a Dane, resolved to get married, settle down, and "lead a tranquil life," after having spent one hundred and eleven years of it principally in the army; and outliving one wife, a woman of half his age, he sought, in his one hundred and thirtieth year, the hand of a young country girl, but finally, after several rebuffs, concluded to remain single, and in that state lived to see his one hundred and forty-sixth year. He is described as having been a man of "rather violent temper," and of great bodily strength, many proofs of which he exhibited during the last years of his life.

Effingham, of Cornwall, died in the one hundred and forty-fourth year of his age, having hardly known what sickness was up to his one hundredth year, working to the last as a day laborer, and walking three miles only eight days before he died. Stender, of the Duchy of Holstein, who reached

his one hundred and third year, it is said, "was never sick, and could never be put out of humor."

A remarkable instance of longevity was reported by Dr. Ornstein, surgeon-in-chief of the Greek army, a year ago. Stravarides, a Greek, died toward the close of 1876, at the age of one hundred and thirty-two years. His history was that he had led a rather intemperate life, consuming daily more than one hundred drachms of brandy, and yet, up to the time of his death, he was in possession of all his senses and still retained his teeth. He was also quite active, dancing when intoxicated. He was born twenty-six years before the great Napoleon, and witnessed the reign of nine sultans.*

The natural duration of man is conjectured by Hufeland to be two hundred years, the life of animals being, as a rule, eight times the period of their growth, and man reaching maturity only at twenty-five.† But there is the serious difficulty in the way of this hypothesis, that no human being since the age immediately succeeding the flood has attained to two hundred years. Abraham reached only to one hundred and seventy-nine, and Jacob, the most aged of the patriarchs, only to one hundred and eighty.

In truth, we have to confess that we know not what is the natural term of human life. We are unable to explain these cases of extreme longevity; nor can we tell why the duration of life varies so much among animals, why the swan and the crow among birds, for example, are "many wintered," while the domestic fowl, which matures at the same age, lives only a few years.

As to the average age of the human race, that depends upon conditions well understood. Climate, personal habits, occupation and modes of life, are known to be vastly influential; but of these centenarians it appears that one at least was an inhabitant of Jamaica; most of them were peasants, but Hippocrates, a student and a philosopher, was of the number; generally they were of peaceful tempers, but one cer-

* New York Medical Journal, January, 1877.

† Art of Prolonging Life, page 91.

tainly was irascible, and another spent sixty-seven years of his life exposed to all the dangers and excitements of war.*

But, though unable to account for longevity, or to recognize the stamina upon which it depends, we know that it is hereditary. Parr had a great-grandson, at Cork, who lived to be one hundred and three years old. Dr. Rush says he never met a person over eighty whose ancestors were not long-lived. Any one who has looked through the inscriptions in ancient churchyards, must have remarked how much long life runs in families. At the same time, there can not be a doubt that they are most likely to attain it who observe the laws of health in youth and manhood. Of all Haller's aged men not one, it is affirmed, was an idler. Some were fond of strong drink, but as a rule they did not indulge until they were far advanced in years. The dissipated young man may assuredly know that he is drawing a blank bill on the future which is sure to come up, and may have to be met before he is old.

The *senectus* of the ancients may be expected, usually from fifty-five to sixty; the *ætas decrepita* is not often delayed beyond eighty, though either may be postponed long beyond their time, as we have seen, and may be brought on prematurely. A number of the old men mentioned were young, as well in feeling as in constitution, at eighty, and some when they had advanced far beyond a hundred; but the large majority of the race grow old before their time. Hufeland reports the case of a man dissected by him who, at the age of forty, exhibited all the signs of bodily decay. His hair was gray, and even the cartilages of his ribs were ossified, as they are found to be in old subjects. A still more extreme case was that of the young king of Hungary, Louis II., who was crowned in his second year, succeeded to the throne in his tenth, had a beard at fourteen, was married before he reached fifteen, was gray at eighteen, and died worn out before he was twenty years old.

* This was a Prussian soldier, who was in seventeen general actions; had his horse shot under him, and was repeatedly wounded; was three times married after he retired from the army, the third time in his one hundred and eleventh year.

The evidences of decline appear first in the hair, which begins to frost or grow thinner, and to lose something of its luster; at the same time the skin shows a little less of the glow of youth, and the eyesight is not so perfect. The step has become somewhat less elastic, and a little later some waning of the memory is observed, resulting from incipient changes in the structure of the brain. To these indications of decay succeed in most men more or less trouble in the urinary function. Micturition is performed with less ease, owing to enlargement of the prostate gland, and must be repeated oftener. The urine is charged with the lithates, in consequence of imperfect oxydation, and is voided in larger quantities. The enlargement of the prostate may aid in the retention of the urine, and thus, up to a certain point, be a convenience, but when it becomes excessive, terrible suffering results from it.

In this first epoch of declining age, grave changes often occur also in the arteries, the coats of which become atheromatous and brittle. Degeneration in the heart, lungs and kidneys, is an event to be apprehended; and diabetes, albuminuria, asthma, angina pectoris, dropsy and apoplexy, are diseases incident to this period of life.

As years accumulate decrepitude comes on, and though the thoracic and abdominal viscera escape disease, time never fails to exhibit its force in the muscular and nervous systems. The "lean and slippered pantaloons" is associated with a brain in which the cells are no longer connected by a perfect interlacement; but their "spur-like processes are worn through, and the cerebral cell is rounded and club-shaped."* The memory decays until it is finally lost. The hand is tremulous, coördinated movements are badly executed, and the old man totters as he walks. Portal compares the nerves in aged persons to the branches of a tree covered with moss, and he also held that their brains are contracted and hardened; but oftener, it seems, the change is of the opposite character.

† Fothergill. *Hand-Book of Treatment*, page 166.

Galen regarded the period of old age as a continued distemper, and it is well for old men, however healthy they may seem, to remember that their systems, as was said by Bacon, are "towers undermined;" for with those latent changes constantly going on in the arteries, heart and brain, they may be constantly exposed to sudden death. Apoplexy may result from straining, as in the act of defecation, and fatal syncope may be induced by a fit of passion. John Hunter was aware of a disease of his heart by which his life was threatened at all times, and which any violence of feeling might render fatal; and yet he suffered himself to be drawn into an angry dispute, in which he fell down and instantly expired.

Sir A. Cooper refers to a case in which, with ossification of the coronary arteries, the coats of the large arteries were so thin that they were with difficulty removed from their places, and broke with the slightest mechanical pressure. Dr. Mounsay, who died in London, in the ninety-sixth year of his age, toward the close of the last century, was confident, from certain symptoms with which he suffered, that he had ossification of the heart, and left his body by will to be dissected. Ossific patches were found, not only on his heart, but on the aorta and the pulmonary artery; all the valves of the heart were extensively ossified, and the iliac and femoral arteries and their branches, extending down to the toes, were nearly continued tubes of bone.*

Of few men can it be affirmed with truth that "of no disease they died, but hung like autumn fruit that ripened long." The great majority are cut off prematurely by disease or accident. The diseases of declining life may be inferred from the account given of the structural changes of the body which occur in old age. How to avert or alleviate them is the interesting question which hygiene proposes to solve.

"We are continually surrounded," says Hufeland, "by the friends and the enemies of life; he who keeps company with its friends will become old, but he who prefers its enemies will shorten his existence." It has been remarked of nearly

* Jameson. *Op. cit.*, page 147.

all the instances of extreme longevity that the subjects were of a cheerful temper, loquacious, hopeful, susceptible of love and joy, and insensible to the impressions of hatred and avarice. In other words, their digestion was good; for it is impossible to suppose that such a temper could ever consist with dyspepsia. Imperfect mastication resulting from loss of teeth is often the cause of indigestion in the aged, and is to be remedied by good cooking, one object of which is to soften the food and prepare it for the action of the digestive fluid in the stomach.

Constipation, which is a frequent trouble of old age, also interferes seriously with digestion. I have for many years prescribed and used myself with great advantage a weak solution of common salt to keep the bowels open. A draught of two or three tumblers of a solution not strong enough to offend the stomach, and drunk before breakfast, seldom fails to procure a free evacuation, without any of the tenesmus which is apt to attend the operation of laxative pills. But an occasional Cooke's pill I have found to produce a very pleasant effect when what is known as a "bilious" state of the system prevails, as it is apt to do in old persons. My old friend, after whom the calomel, aloes and rhubarb pills are called, relieved many a case of dyspepsia by them in the course of his long practice.

Apoplexy, as has been remarked, is eminently a disease of advanced age. Of the persons who reach seventy in London, and no doubt it is equally true of most cities, one-fourth are shown by bills of mortality to die of apoplexy, or paralysis, which is its result. Heberden declared that the number of cases of this disease was doubled in London during the eighteenth century; and there is reason to believe that it everywhere increases with advancing civilization. By keeping the bowels free, one source of danger is obviated in the crippled condition of the arteries which makes an attack imminent.

The enfeebled power of generating heat renders aged persons extremely sensitive to cold, and liable to the complaints which cold engenders. Many old people, especially among

the poor, fall victims to pneumonia every winter. Dr. Cooke, just referred to, long a teacher of medicine in Kentucky, had repeated attacks of pneumonia, and finally died of one brought on by exposure to cold on his farm. If he stood on a cold pavement, at any time, until he began to shiver, he was sure, as I have often heard him remark, to have an attack.

With old people one great study is how to keep warm in cold weather. Boerhaave, it is related, renewed the vigor and activity of an old burgomaster by having him to sleep between two young persons. A hot brick to the feet at night aids greatly in maintaining the heat of the body, and in this way favors sleep. Among modern inventions I know few which have added more to the comfort of people of every age, who find it necessary to be out on the cold, sloppy ground or pavements, than gum elastic overshoes.

The ancient Romans, it has been stated, prolonged their lives by retiring to Naples, as soon as they felt the infirmities of age coming upon them. We have in the southwestern part of Texas, around San Antonio and Seguin, an elevated and healthy region to which the aged of our colder states might find it advantageous to retire during the winter.

Many old men endure a large amount of unnecessary suffering, especially in the urinary organs, from an apprehension that their infirmities are the inevitable results of age. A medical adviser will put them in the way of mitigating evils which can not be entirely overcome. Even so grave an affection as diabetes may be benefited by a proper regimen. The troubles connected with making water may be overcome, to some extent, by instruments. The calculous diathesis may be corrected by proper treatment, and the bladder rendered tolerant of a stone by alkalies. Sir A. Cooper relates a case in which a country parson, with a calculus in his bladder, was able to go fox-hunting under their use, and even persuaded himself that the stone was gone. By early attention, the calculus may be discovered while it is small and removed by a comparatively painless operation. Dr. Franklin's last years were embittered by a stone in his bladder. Dr. Physick, to-

wards the close of his life, operated on the aged Chief Justice of the United States, John Marshall, and removed more than a thousand small calculi from his bladder. Sir Walter Ogilvie, thirty years before, had one taken from his bladder in London, which weighed three pounds and four ounces, and died in ten days in consequence of the severe operation.

With a failing memory and other indications of senile decay, the querulousness of second childhood is expected to come on; and yet peevishness is not necessarily an attendant of old age. We have had in our own day and in our profession an instance of cheerfulness, with great bodily and mental strength and activity, maintained at an age which not many men reach. Few books composed in a more charming spirit have ever emanated from medical men than the "Recollections" of Sir Henry Holland, written after he had passed his eighty-second year.* Cicero probably overestimated the power of the mind to preserve its integrity against the wear of time, but there can not be a question that much may be done to delay the failure of its powers. Not only memory, but serenity of disposition may be improved and maintained by suitable appliances, one of the most important of which is pleasant occupation. If not kept in constant exercise the memory soon fails; and the mind, if not occupied, not only parts soon with its activity, but is almost sure to grow discontented, impatient and sour.

Old age hath yet his honor and his toil.†

Few greater mistakes could be made than the one often committed by old men of retiring too early from business. They soon learn, as Pascal expressed it long ago, that "what their minds require is not rest but perpetual excitement." The mind must have something upon which to fix its anticipations, or it is unhappy. One of the reasons why married people live longer than maids and bachelors, and are less lia-

* *Recollections of Past Life*; a volume which may be commended to readers of every age and calling, for its matter, its pleasing style, and especially for the cheerful, benevolent temper which it displays.

† Tennyson's *Ulysses*.

ble to insanity, it may be is that they find this source of happiness in their offspring. Dr. Rush thought he had observed that old people who lived with their children, and were surrounded by grandchildren, enjoyed better health and spirits than when they lived by themselves. And there can not be a doubt as to the truth of his observation. Children to the aged are, indeed, "what leaves are to the forest," bringing a glow of sunshine into their hearts which otherwise would never reach them. On the tombstone of an old Roman schoolmaster, L. Clodius Hermippus, it is recorded—

Vixit annos CXV dies V.

Puellarum anhelitu.

Literally, "by the breath of maids;" but no doubt the idea meant to be expressed by the writer was that the life of the veteran schoolmaster had been lengthened as well as gladdened by the companionship of his young scholars.

The changes that take place in the brain as life advances involve necessarily a decay of the intellectual faculties, and with it a failure of the animal spirits, so that old age, unless counteracted by all the happy agencies that can be brought to bear upon it, is apt to become selfish, peevish, impatient, and unamiable. Some of these agencies have been mentioned, but much the most powerful of them all must be reckoned the promises and hopes of the Christian religion. These, where they have been firmly embraced, remain in the memory of the old man when nearly every other impression has faded from his mind. Instances are related of men who had forgotten the faces and even the names of their children, but who warmed up at once at the name of their Redeemer. "In the course of my inquiries" (concerning old age), says Dr. Rush, "I heard of a man of one hundred and one years of age, who declared that he had forgotten everything he had ever known except his God." In possession of a strong religious faith, the old man is serene under the accumulating infirmities of age, for he is looking forward to a life near at hand in which infirmities have no place. He observes without anxiety or concern the failure of his mortal powers as he sees it going on from day to day, because he is assured that

in a little while these powers will be clothed with immortality. And he approaches the valley of the shadow of death without fear, for he feels that he is leaning on an Almighty arm, and is persuaded that he has an eternal home in the heavens beyond.

The employments of old men, while they should be such as to fill the mind with gentle excitement, and save it from that weariness of life from which men have sometimes sought relief in suicide, ought never to be of a character to put either the body or the mind on the strain. Violent bodily exertion is attended, at that period of life, with dangers which have been pointed out. Equally ought the aged to avoid gusts of passion, which involve similar dangers; nor can the studious safely keep up "that painful thinking which corrodes the clay." The brain soon becomes fatigued, and sleep, the only restorer of lost nervous energy, must be indulged for longer periods. The sense of fatigue warns the laborer when his mind or his muscles require rest. But the thought with which I would close this essay is that the danger which most imperils the comfort of old age is, not overwork, but the want of enlivening occupation.

LOUISVILLE, KY.

Just as the form containing this most interesting paper was going to press, the message of the death of its author was received. A peculiar interest, therefore, attaches to these, the last words to the profession of one of its noblest and most illustrious members. We rejoice he was spared to write this paper, terminating his long, useful and honored life with such work. Elsewhere in this number we hope to refer to Dr. Yandell's character and death with some detail. T. P.

SALICYLIC ACID IN ACUTE RHEUMATISM.

BY JAMES I. ROOKER, M. D.

I was called December 2, 1877, to see Mrs. R., aged sixty-seven years, suffering severely from acute rheumatism of three or four days' duration. I learned that my patient was by birth a Virginian, and that she had previously enjoyed good

health, with the exception of an attack similar to the present one some fifteen years ago, which disabled her for a "long time." Her pulse was 130, temperature $102\frac{1}{2}$, bowels constipated, urine scanty and highly colored, with complete anorexia, skin very dry. A saline cathartic was ordered to be followed by the following prescription:

℞ Acidi salicylici, ʒ ss
 Sodæ boratis, ʒ i
 Glycerinæ, f ʒ i
 Aquæ menth. pip., f ʒ v. M.

S. A table-spoonful every three hours.

The joints were wrapped in raw cotton, and ten grains of Dover's powder was given at bedtime.

December 3. Pulse 98, temperature 100, skin moist, bowels moved twice in the past twenty-four hours, decided increase of urine. The patient objected to the medicine on account of its disagreeable taste.

December 4. All previous symptoms much improved; profuse perspiration; a greater mobility of diseased joints; thinks she will get along now, and refuses to continue the use of the "nauseous medicine." Iodide of potassium with wine of colchicum was substituted. This treatment was continued for a few days, during which time I found my patient much worse than previously; joints painful and much swollen; skin hot and dry. She gladly consented to return to the bitter medicine. As soon as the system could be brought under the influence of this drug, there was a complete amelioration of all the symptoms, with a copious perspiration. This mode of treatment was continued until all the acute symptoms had entirely subsided, which was in about ten days. After this the case was treated on general principles, the patient recovering as soon as could be expected of one of her age.

REMARKS.—In presenting this case to the profession, I am well aware that I am offering nothing new to the intelligent physician, but only furnishing additional evidence as to the good effect of a comparatively new remedy in the treatment of one of the most obstinate diseases, a disease which is often

trying to patient and physician. Certainly no other disease has had more various methods of treatment, with so many different results. Alkalies, acids, stimulants, depressants, hot and cold baths, blisters, etc., have been used, and now salicylic acid; this multiplicity of remedies proving that the pathology of rheumatism is not understood.

Dr. Traube, of Berlin, in 1873, was one of the first to recommend this remedy in the treatment of acute and subacute rheumatism; since then it has been extensively used by others, and the results published. Dr. MacLagan published a very interesting article in the London Lancet, March, 1875, in which he extols salicylic acid in the treatment of acute rheumatism. The following resumé of fourteen cases of acute rheumatism, treated in Boston City Hospital, is given by Dr. Hall Curtis in the Boston Medical and Surgical Journal:

1. No effect from salicylic acid.
2. Alkalies for a month; then acid, eight doses, with relief.
3. Alkalies for twenty days without relief; acid in one day gave relief.
4. Acid for seven days; patient well.
5. Alkalies two days; acid seven days, with entire relief.
6. Relief after four doses of acid; this was continued four days; recovery.
7. Acid three days without relief; followed by tincture of chloride of iron for fifteen days; recovery.
8. Alkalies gave relief in four days; recurrence; acid given four days with entire relief.
9. Acid three days, no relief; alkalies twelve days, recovery.
10. Acid seven days, with entire relief.
11. Acid refused by stomach; alkalies during eleven days, with relief.
12. Complete relief in a few days,
13. Acid given; well in a few days.
14. Acid seven days; complete relief in three days.

Except in one or two instances, the salicylic acid was given in wafers.

Reviews.

Spinal Disease and Spinal Curvatures—Their Treatment by Suspension and the Use of the Plaster-of-Paris Bandage. By LEWIS A. SAYRE, M. D., Professor of Orthopedic Surgery in Bellevue Hospital Medical College, New York. London: Smith, Elder and Co., 130 Waterloo Place. Philadelphia: J. B. Lippincott and Co.

London, on the title-page, is a guarantee for the elegant manner in which the book is presented to the reader. All the world seems to be behind London in the typographical art. The hurried style of the volume bears the impress of the gifted author. Beauty and strength are not always combined. Many of the illustrations are photographs.

The treatment of Pott's disease by Sayre's Plaster Jacket has created a profound impression upon the surgical mind. Mechanical appliances had accomplished much, but they were far from satisfactory, giving more often comfort than cure; hence surgeons were not slow to try something which, although radically simple, promised much more than any of the expensive appliances. The first question, however, which presented itself, can a patient bear this solid encasement from the arm-pit to the hips?—will it not interfere with the muscles of the chest and the abdomen, and hence embarrass respiration?—was answered most emphatically on the first trial. Comfort took the place of discomfort, strength that of weakness, and in many instances patients walked who had been for weeks and months in a recumbent position.

A little mulatto child was brought to the writer; it was four years old, had never walked a step, could not bear its weight upon its legs. It had not Pott's disease, but its spine was distorted laterally and antero-posteriorly from want of muscular equilibrium; its legs and thighs could hardly be said to be covered with muscles, so skinny and attenuated were

they; its abdomen was large, very large, and as resonant as a drum. The mother had been told that "the child could not be benefited; that it could not live long." I put a plaster jacket on it in the presence of the clinical class at the Good Samaritan Hospital, and in one week that child walked across my office, holding by the hands of its mother. I cut the jacket up in front; it was often removed at night, and I was credibly informed that the little girl would call for her jacket in the morning before getting out of bed, so much comfort did she experience when it was upon her. The child grew straight, the protruding abdomen sunk, and the muscles of its extremities, under use, soon asserted their proper forms.

I took up my pen, however, not to report my cases but to say something of Prof. Sayre's book upon "Spinal deformities." He begins the work by a brief statement of his views upon the pathology and etiology of Pott's disease. Upon the proposition that caries of the spine is *most* frequently the result of a trauma, I think there would be but little discussion, most surgeons of experience would affirm; in fact, the whole subject of mechanical treatment, and the success which has been obtained, rests upon the affirmation of this question, for it would be of little use to attempt to relieve the bodies of vertebræ undergoing tubercular degeneration. It may well be doubted whether one single case of true strumous osteitis has ever been arrested.

Prof. Sayre's unusual experience in this class of cases renders his remarks upon symptomatology of great value, especially the symptoms in the formative stage of the disease. When Pott's disease is duly developed, its symptoms are so distinctly pronounced that they can not be mistaken; but in the early period, before deformity is manifest, if there be symptoms which unquestionably define the character and locate the morbid action, their recognition is of the utmost worth. Upon this our author says: The symptoms of spinal *caries* in its early stages are sometimes very obscure, and consist mainly in "transmitted and reflex nervous disturbances." When the caries affects the cervical vertebræ, he says that

long before deformity occurs the patient will complain of "dysphagia, a sense of constriction around the neck, a troublesome and frequent cough from laryngeal irritation, pain over the upper portion of the thorax." If it be dorsal caries, the patient may complain of "a feeling of constriction around the trunk, pain along the boundaries of the chest and abdomen." He may also complain of "ill-defined pains within the thorax, especially in the region of the heart." The earlier symptoms of caries in the "lumbo-dorsal region," may be found in the abdomen; young patients are suspicioned of having worms. When the caries is still lower, the reflex symptoms are usually seen in disorders of the bladder and rectum.

"*Reflex muscular contractions.*"—These, he says, "constitute another early symptom that may lead to the recognition of spinal caries." They form the muscles into rigid splints, that protect the spine from concussion during sudden movements.

For an examination of the spine, Prof. Sayre places the child face downwards across his knees; then by separating his limbs, he is enabled to make extension. Cold or heat along the spine often produces sufficient reflex muscular contraction to indicate the seat of disease.

After discussing briefly the "principles of local treatment," he passes at once to the treatment under which he gives a detailed account of the "Plaster-of-Paris Jacket," how to make it, the position of the patient during its application, and the management thereafter of both patient and jacket.

The writer has applied the jacket a great number of times, and with the most satisfactory results. Prof. Sayre's directions were followed very closely, except in the "dinner-pad" and the "strips of tin." The abdominal walls seemed to have sufficient play without the use of the former, and the jacket, without being reinforced by strips of tin, was strong enough. For a child, from three to five years old, I have used four rollers seven yards long. This made a firm jacket, and strong enough. Could I have made it lighter by the use of less bandage? Upon this part of the subject I regret the accomplished author has not gone into sufficient detail.

Whilst writing this article, I received a letter from a physician in northwestern Ohio, in which he incidentally says, "Dr. W.'s little girl's spine seems to be perfectly relieved." This was the first case upon which I applied the jacket, and a more unpromising one could not well be imagined—protruding chest, embarrassed respiration, reflex contraction of one of the limbs, with a sharp angle in the middle of the dorsal region. This child wore the first jacket several months, from the middle of July to some time during the fall.

Prof. Sayre, in case XXII, page 60, speaks of the comfort experienced by the patient when suspended; during the present week a bright little boy, with a dorso-lumbar projection, almost went to sleep during the application. So relieved was he that he did not start at the touch of the cold when the first layer of the roller was applied over the thin shirt. This, however, has not been my uniform experience. Suspension by the arm-pits—the weight of the body hanging upon the tissues of the axilla—is usually painful; and I have been favorably impressed with the suggestion made by Dr. Collins, of Guilford, Indiana. Dr. C., instead of having the straps for suspension pass directly upwards, crosses them—one in front, the other behind the head. In this way, the weight of the body comes either against the sides of the chest, high up under each arm; and he assures me that patients complain much less when suspended in this way than after the manner of Prof. Sayre.

The cervico-dorsal angle has always been the most difficult to overcome—the ordinary jacket, of course, does not reach high enough to relieve these cases; for such Prof. Sayre supplements the plaster encasement with what he calls his "jury-mast apparatus," the argument of which is the removal of the weight of the head and neck from the suffering vertebrae. It seems correct in principle, and from the report of cases it realizes in practice what it promises in theory.

Case XXIII, page 70, strikingly illustrates the value of the combination of the jacket and jury-mast. This boy was unable to walk, could not stand without support, had "grunting

respiration," and convergent strabismus. The jacket enabled him to walk, the addition of the jury-mast relieved his respiration, and his strabismus disappeared. The next day he went to Philadelphia, and spent two days without fatigue inspecting the centennial exposition! What other appliance would have given such wonderful results? When we reflect upon the past of surgery, such results are truly wonderful; for it is known of all men—medical and surgical men—that until the last few years such cases were regarded as remediless, hopeless. It would not require very deep research to establish the fact that to American surgeons belongs the merit of having brought about the gratifying change; and I would not be unjust to other worthy men were I to affirm that to our author, more than to any other one man, the credit is due for effecting this revolution.

Prof. Sayre rightfully gives to Dr. A. B. Judson, of New York, the credit of having first clearly explained that in lateral curvature there is always more or less of rotation of the bodies of the vertebræ. He heads this chapter as "rotary lateral curvature of the spine," and gives a number of cases to show the admirable conduct of the plaster jacket. In these cases of muscular insufficiency much was accomplished by well fitting braces and supports, but hardly so much as may be hoped from the "new practice," of which Sir James Paget says—"It is beyond trial; it is an assured success."

The value of this discovery is increased fourfold when it is remembered that the poor suffer most, and that an efficient and curative apparatus can be applied for a few pence. What surgeon has not had his heart bleed when the mother, with the suffering child, has said to him, "Doctor, will the instrument cost much?" How many children have been buried after long suffering, or have entered life permanent cripples, because the "instruments cost so much;" the means of cure and bread could not be afforded.

I close this volume with a feeling of pride that American surgery is accomplishing so much.

W. W. D.

A Treatise on Gonorrhœa and Syphilis. By SILAS DURKEE, M. D., Consulting Surgeon to the Boston City Hospital, etc. Sixth Edition. Philadelphia: Lindsay & Blakiston. 1877.

A medical work oftener recommends itself by its newness than by any other quality, but this should not be always a criterion. The past claims its talents as well as the present, and deserves recognition of its scientific monuments.

The book in question is an old one, but its merits have justified six editions with but little alteration or addition. It is systematic and compendious, and presents the subjects in an exhaustive manner and most admirable literary style.

The author believes gonorrhœa to be always caused by the same specific infective virus; objects to injections, relies on copaiba, etc., and recognizes the utility of bougies in gleet. All the sequelæ are fully considered. He accepts the duality of chancre virus, but only one syphilis; cures it with mercury, while not denying the efficacy of non-mercurial agents; believes in early abortion of chancre by cauterization before induration; and considers artificial syphilization as "beastly." The *bubon d'emblée* is doubted. All the possible secondary and tertiary conditions and their management are very satisfactorily presented. Altogether it is a book worthy of retention among our standard authorities. J. G. R.

Surgical Observations, with Cases and Operations. By J. MASON WARREN, M. D., Surgeon to the Massachusetts General Hospital, Fellow of the American Academy of Arts and Sciences, etc. Boston: Ticknor & Fields. Louisville: John P. Morton & Co. Boston: A. S. Williams & Co. 1877. 350 pp.

This is partly a posthumous publication of Dr. Warren's, for while it was printed during his lifetime and under his superintendence, the edition was for some reason withdrawn, and was not until last year placed before the profession. Hence, although it bears a date of ten years back, it is in reality a new book.

The arrangement of the work is somewhat peculiar. It is strictly, as its name implies, "Surgical Observations with Cases," etc.; but the range of these is so extensive that the whole field of surgery is pretty well covered, and so it is in reality a somewhat systematic treatise on surgery. We are particular in mentioning this fact, because a report of cases usually signifies a mere record of the curiosities of our art.

Dr. Warren followed rather strictly the original plan in dividing his subjects, adding chapters on gunshot wounds, miscellaneous cases and anæsthetics; in all three hundred and seventy-three cases are given. They are told in an exceedingly natural manner, and never fail to interest and instruct. The records have upon them always the impress of the gentleman and scholar, both alike disdaining embellishment. They are uncommonly fine models in their way. We have never taken up the book without having learned something from it. Of course we commend it to our readers.

The mechanical execution of the work is noteworthy. It is printed on heavy tinted paper, in clear type, and contains a number of chromo-lithographs. The cost of the work was, we believe, originally ten dollars. It is now but three dollars and a half, and a cheaper or more valuable work the student of surgery can hardly find.

How to Use the Microscope. By JOHN PHINN, Editor of the American Journal of Microscopy. Second Edition. New York: The Industrial Publication Company. 1877.

American books for American students. Recent perusal of a huge German work on this very subject, full of German suggestions, descriptions and references, was the incentive to the expression of this maxim; and this little American book, all kernel, justifies it. The beginner can understand its teachings, the instruments it describes are easily attainable; and in a simple, concise manner, it tells you where to get, and how and when to use them.

Its chapters are devoted consecutively to the instrument,

its kinds, objectives, accessories, illumination, collecting of objects, their preparation, presentation and mounting. Not only will it be found a useful aid to the physician, but to all who, led either by love of science or elegant curiosity, wish to explore the world of little things, the wonders of which far surpass in variety and splendor those of the more tangible macrocosm.

J. G. R.

The Annual Medical Directory of Regular Physicians in the State of Illinois for the Year 1778. Published by F. A. EMMONS, M. D., Chicago.

The editor states that he has spared neither time nor expense in the preparation of this directory. In looking over the book we find a few omissions of some of our Illinois friends; but the work has been no doubt a very laborious one, and Dr. Emmons deserves credit for the completeness which the book presents. Beside the name of each physician, his residence, population of the town in which he lives, his alma mater, and the different medical associations to which he belongs, it contains the recent laws enacted regulating the practice of medicine in Illinois, the laws of the state pertaining to lunatics, idiots and drunkards, and the code of ethics. It is a valuable book to all persons having dealings with doctors.

The Elements of Therapeutics—A Clinical Guide to the Action of Medicines. By Dr. C. BINZ, Professor of Pharmacology in the University of Bonn. Translated from the fifth German edition, and edited, with Additions in conformity with the British and American Pharmacopœias, by EDWARD I. SPARKS, M. A., M. B., Oxon. New York: William Wood & Co. 1878. Louisville: John P. Morton & Co.

A book in every respect excellent. It is a judicious condensation of practical, useful facts, educed from physiological experiment and clinical observation. It is equally judicious in its omissions and its selections. No one work is sufficient to the needs of the physician, but this work is one of those which every physician's library should possess.

Clinic of the Month.

MATERNAL IMPRESSIONS.—At the Royal Medical and Surgical Society, January 8th, Dr. William Sedgwick spoke as follows: Great care had been taken to avoid, as far as possible, any unnecessary reference to cases which possessed no practical significance, or which, from their doubtful character, would tend to increase skepticism. In reproductive development, women, as a rule, transmitted with more facility than men. The normal influence of the mother on the intellectual development of her offspring had been well and familiarly expressed in the term “mother-wit;” and, in abnormal development, it had been long known that women often served, and to a far greater extent than men, as conductors of an inheritance which they did not share. In like manner, it was now popularly believed that it was the emotional impressions of the mother, and not those of the father, which were imparted to the fetus in the form of “mother’s marks.” But this assumed limitation of emotional impressions to one sex did not always prevail; for originally either parent was thought to be capable of imaginatively affecting the offspring at the period of conception, and traces of this form of the belief had been lately found among some of the tribes in Central Africa. There was an essential difference between cases in which some modification of fetal structure had been slowly effected through the influence of the perceptive faculties, and those cases in which emotional impressions had been believed to act on the fetus by causing a supposed sudden arrest in its development. The occasional transmission to offspring of acquired defects of structure could not be logically objected to, since all abnormal modifications of the system must have been acquired

before they could have been transmitted. It was no doubt difficult to distinguish between the alleged influence of maternal impressions and that of heredity. The establishment, through hereditary influence, of acquired instincts in the lower animals, as well as the occurrence of hereditary talent in our own race, was apparently due to some modification of structure: and when, in like manner, maternal impressions had been said to react specially, if not exclusively, on the nervous system of the offspring, the effect might, with equal probability, be referred to some modification of structure produced through the medium of the blood. The exaggerated importance which had been assigned to nerve-communication, as the only probable way by which the supposed influence of maternal impressions could be conveyed to the fetus, had no doubt had a tendency, in former years, to retard and obscure the inquiry; and the opinion was expressed that the limitation of the influence of a maternal impression to a corresponding organ or tissue in the fetus, as a consequence of some slight and inappreciable alteration in the blood of the mother being imparted to the local nutrition of her offspring, might physiologically be regarded as more probable than limitation effected by nerve-influence. There was no reliable evidence that a congenital defect had ever been the direct and immediate result of arrested development; whilst the popular belief that a maternal impression could be conveyed to the fetus, and affect it like an electric shock, should be simply dismissed as a popular fallacy. The influence of the impression, at an early period of pregnancy, could only be conveyed to the part through the medium of the blood or nutrient fluid.

Dr. Sedgwick directed attention to the comparative physiology of reproduction in the lower animals; and showed that, when the tendency to an artificially developed excess of structure had, through hereditary influence, been pushed too far, it was apt to be followed by deficiency and arrest, as in the case of some top-knotted varieties of birds. Abnormal increase of structure, without any subsequent arrest, occurred in cases of supernumerary fingers and toes, which had been

sometimes referred to the influence of maternal impressions; and there was local increase of the vascular tissue in nævi, and of the hair, if not always of the skin, in those pseudo-mimetic moles which had been said to resemble the rats, mice, and other animals with hairy skins, which had frightened women during pregnancy. It might be expected that a maternal impression, sufficient to produce a physical peculiarity or defect in the fetus through the medium of the blood, would reappear, at least in a modified form, in some of the succeeding offspring; but there was very little evidence of any kind in favor of such an occurrence. Referring to the episode of Jacob's rods, he said that they were apparently employed, not to originate, but simply to aid in the increased production of specially marked offspring. There had been many illustrations of the effect produced by variously colored objects, on the breeding of sheep and other animals, since patriarchal times. Dr. Alexander Harvey and other observers had collected and published evidence on the subject. The evidence in favor of the influence of maternal impressions did not appear at present either sufficiently relevant or trustworthy. (British Medical Journal.)

NERVE-STRETCHING.—A. Blum, *Archives Générales*, January, observes that this operation was performed first by Billroth in 1869, and since that time the operation has been several times repeated in Germany and in England with an almost invariable success. Blum has collected eighteen cases of nerve-stretching, where the design was relief of neuralgias or of spasms, more or less general. The manual of operation he gives as follows:

1. *Incision*.—It should be made parallel to the direction of the nerve, and guided by topographic anatomy. It is impossible to give precise directions as to the place. If we suspect the presence of a foreign body, or adhesions from the primary wound, if there is a limited abnormal sensibility, the incision should be made *loco dolenti*. Otherwise it is necessary to select the place nearest the suspected point of departure of

the accident. The length of the incision will vary according to the depth of the nerve; five or six centimeters will generally be sufficient. Esmarch's bandage, if there be no contra-indication, will greatly facilitate the operation.

2. *Separation*.—In separating the nerve from the adjacent parts, use the finger or a grooved sound.

3. *Stretching*.—This is lifting up the nerve, and exercising greater or less traction. For this purpose the finger, the sound, a blunt hook or forceps, may be used. This step in the operation must conform to a definite rule.

Some surgeons, Nussbaum for example, isolate the nerve, stretch gently, and replace it. Others, as Verneuil, after having lifted up the nerve and stretched it, turn the edges of the grooved director against it, and press it between the instrument and the thumb. The force thus used is considerable. This method of operation cuts off all communication between the nerve termination and the center, and ought not, in our opinion, to be regarded as nerve-stretching; it is a crushing, a section by a blunt instrument, but not an elongation.

Marchand having done Verneuil's operation upon the sciatic nerve of a dog, caused paralysis of motion and of sensation. At the autopsy, not the least appearance of nerve tubes was found at the point the sound was pressed—the nerve no longer existed; at the periphery the nerve was in complete degeneration. The method of Verneuil then may be rejected from the true operation of nerve-stretching.

4. Finally, the nerve is replaced, and the wound dressed. The dressing will vary with the surgeon, but in all cases early healing of the wound is important in order to prevent the production of cicatricial tissue, which, in consequence of nerve compression, may be the source of new accidents.

The prognosis of the operation is very favorable. The three deaths that have occurred in the eighteen cases I have collected, were not the result of the traumatism. . . .

In regard to the force which will rupture nerves, the experiments of M. Tillaux inform us. After exposing the sciatic nerves of two fresh cadavers, all the connections between the

leg and thigh were divided except the nerve; then a force of fifty-four to fifty-eight kilogrammes exerted parallel to the axis of the member was required to rupture the nerves. Similar experiments were made upon the median and ulnar nerves; the force used in the rupture of each varied from twenty to twenty-five kilogrammes. From many investigations the force exerted in stretching a nerve, by means of a sound, ought never to be more than fifteen kilogrammes.

SUDDEN DEATH IN DIABETES MELLITUS.—Dr. Jules Cyr concludes, in the *Archives Générales* for January, a paper upon sudden death in diabetes. He states that in cases of such death, these three symptoms or periods—excitement, dyspnoea, drowsiness or coma—generally occur in this order.

The period of excitement may be absent or pass unperceived, but the dyspnoea is so painful and is so intense that it compels attention. The pathogeny of this sudden death rests upon these causes:

1. Under the influence of conditions almost unknown, sugar is transformed into acetone in the organism, and this substance produces acute intoxication by *acetonemia*, remarkably analogous to chloroform poisoning.

2. The quantity of sugar formed in the economy not being sufficiently eliminated, the blood becomes excessively filled with it, and the sugar then acts not precisely as a toxic substance, but in a way somewhat similar; it perhaps does not directly destroy the blood globules, but by its presence in the serum prevents the oxygenation of the blood; in a word, causes *anoxemia*.

3. The retention either of the extractive principles or of the watery portion of the urine, or of both, with or without the condition last mentioned, equally causes a special poisoning—a matter somewhat disputed—or a dropsy of the ventricles or œdema of the brain.

4. Atrophy of the heart may also be invoked, considering that this organ participates the general marasmus of the organ-

ism, this slow consumption which wears away the diabetic so often without revealing itself by well marked phenomena.

5. Finally, perhaps it is necessary to add to these that cerebral anemia, although its conclusive demonstration has not yet been made in the diabetic, may still be the cause of mortal coma.

ARSENIC TREATMENT OF MALARIAL FEVER IN ALGIERS.—Dr. Sistach prefers above all other preparations of arsenic, in the treatment of malarial fever, the pure arsenious acid, a solution of one hundred and ten grammes to a liter of boiling water. By his observation in Algiers, he found, as the physiological effect of arsenic, increase of appetite and of muscular strength. There was a diminution of urea and of the carbonates of urine. However the effect of arsenic, upon the whole, was inferior to that of quinia, and even appeared to be hazardous in intermittent fevers, and also in severe remittent types of fever. Fowler's solution produced an inconstant or unreliable effect. (*Med.-Chir. Rundschau*, Dec., 1877.)

LOCAL TREATMENT OF ACNE.—Dr. Robert Lieveing, *Lancet*, Jan. 19, advises the following plan as generally successful:—(1) The face should be steamed every night by holding it over a basin of hot water for a few minutes. (2) The skin should then be well rubbed for five or ten minutes with soap and flannel, or a soft nail-brush may be used with advantage where the skin will bear it; the soap should then be sponged off with warm water. (3) When the face has been dried, a lotion composed of half an ounce of precipitated sulphur, two drachms of glycerine, one ounce of spirits of wine, three ounces each of lime-water and rose-water, should freely be applied and allowed to remain all night. Add ether to the lotion if the skin is greasy. Sometimes an ointment—hypochloride of sulphur $\mathfrak{z}\text{ss}$, carbonate of potash gr. x , oil of bitter almonds gtt. x , and lard $\mathfrak{z}\text{i}$, or sulphur ointment $\mathfrak{z}\text{iii}$, with vaseline $\mathfrak{z}\text{v}$ —is better than the lotion. In either case leave the application on all night, and in the morning let it be washed off with warm oatmeal and water or weak gruel.

Notes and Queries.

TOO MANY DOCTORS.—Dr. William Pepper, Professor of Clinical Medicine in the Medical Department of the University of Pennsylvania, delivered the introductory address at the commencement of the present course of instruction in that venerable institution. This address, by request of the students and by direction of the trustees, has been published.

Dr. Pepper bears an honored name—a name almost reverentially cherished by many physicians in various parts of our country. Many of the older—we will not write old or oldest—Philadelphia medical students remember well how valuable the clinical instructions given at the Penn Hospital by Dr. Pepper's father were, what wonderful skill and accuracy of diagnosis, what kindness and courtesy of manner—making him in all one of the best types and models of a physician—the Dr. William Pepper of those days exhibited. But one generation passeth away, and another cometh. Another William Pepper is teaching clinical medicine in Philadelphia to other medical students than those who congregated there twenty-five or more years ago.

The subject of Dr. Pepper's address is, *Higher medical education the true interest of the public and of the profession*; and very ably has he maintained this thesis. For the moment we shall say nothing more of the address, but we will refer to some of the statistics appended to it.

From those statistics we find that the United States and Canada are abundantly supplied with the facilities for making doctors. Thus in the former the proportion between medical schools and the population is 1 to 477,392, and in the latter 1 to 426,947; while unfortunate England has only one medi-

cal school to a population of 1,705,895, and unhappy France 1 to 6,000,000.

We next come to a graver matter in these tables—the relative number of doctors and people. The average proportion in our states and territories is 1 to 618, while Great Britain has 1 to 1612, France 1 to 1,814, the German Empire 1 to 3,000. We frequently have letters from doctors wanting places—looking for openings. Our belief has been that the profession is packed so closely together that eligible locations and good openings are mythical, and that the only way is for a doctor to choose the location he likes and his means permit, and make his own opening. But now we find New Mexico is just the place, for it has only one doctor to 3,402 people, to which these applicants should be directed. They should be warned from Nevada, for it has one doctor for 380. Indiana and Kentucky are not suffering from dearth of doctors; the former has 1 to 465—a liberality of supply which her four medical schools will do nothing to lessen; while the latter has 1 to 547, and is credited with six medical schools, though really we know but four.

Every year, according to Dr. Pepper, the medical schools graduate 3,000; and probably half as many each year enter upon practice without being graduated. These facts bring us to our text, or rather prove it,—too many doctors.

“Every gate is thronged with suitors; all the markets overflow.”

Many of the bad results of this great medical multiplication must be plain to every man. Without referring to the deteriorated product which is frequently a consequence of overproduction, it would be painful to relate more patent evils—the rude jostlings for place and practice, seeking success by dishonest and unjust means, trampling under foot the rights and courtesies of professional life in a fierce struggle for existence, cultivating the scheming arts of the politician, or the brazen effrontery of the quack rather than the dignity and virtues of the gentleman and the studious habits of the scholar: these are but a tithe of the mischiefs that are born of this crowd-poison.

Dr. Pepper's remarks as to a higher medical education are seasonable, of course they are. But must we wait until this higher medical education is the rule of all the schools? That is putting the day of redemption too far off; the good time may be coming, but it is too remote for even a robust faith. One of our contemporaries has recently expressed regret that there are medical students who have never studied Latin, and would like to remand them to the blacksmith shop or to the farm. But what severer punishment is to be visited upon professors in medical colleges who never studied Latin,—nay, who never learned to speak and write correct English? We apprehend many of our medical colleges would have a few vacant chairs, if such educational qualifications were requisite. Making them requisite something might be done to lessen the over-production of doctors; for it is largely half educated teachers, often self-appointed professors, who are doing most to lower the standard of professional qualifications. But we find little hope for relief in this suggestion.

Could there not be a tax imposed upon medical colleges varying with capacity for production, with amount of fees charged, etc.? These colleges might, as the distilleries do, keep their product in bond until there was a demand, and then pay the government tax. Wise statesmanship may here find an important source of public revenue, and thus materially diminish the public debt.

The increase of doctors, in a greater ratio than the increase of the means of subsistence, certainly appeals to some medical Malthus for a remedy. Dean Swift, familiar with the condition of the poverty-stricken Irish, published, in 1729, "A modest proposal for preventing the children of poor people from being a burden to their parents or country, and for making them beneficial to the public." His plan was founded upon the following statement: "I have been assured by a very knowing American of my acquaintance in London, that a young, healthy child, well nursed, is, at a year old, a most delicious, nourishing, and wholesome food, whether stewed, roasted, baked or boiled; and I make no doubt that it will

equally serve in a fricassé or ragout." The Dean estimated that 100,000 infants of a year old could be sold at ten shillings a piece, thus adding annually to Ireland an income of £50,000. This proposal, made nearly a century and a half ago, was never acted upon, though some French writers took it seriously into consideration. If child-eating, though pressed by the strong arguments of Swift, was not adopted then, it is hardly probable that any other form of anthropophagy will be now accepted by enlightened nations. A witty French physician, in referring to the *cura famis*, calls it a sort of *auto-phagy*: so, too, if doctors were as toothsome and tender as the Dean, on the authority of his knowing American friend, asserted babies to be, we might have the word *iatrophagy* introduced into our vocabularies, and its practice might be trusted for a decided lessening the number of doctors. Pantagrue ate six pilgrims in a salad, making no complaint of the toughness of their tissues; and their active mode of life certainly would be more conducive to such a condition than that of a doctor sitting in his office until his glutei muscles have been absorbed by pressure, while he patiently waits for clients who do not come.

Vivisection presents a fine field for the philanthropic self-sacrifice of superfluous doctors. Might not some of our leading medical colleges pay liberally for human subjects on whom to illustrate the truths of experimental physiology, or test the effects of some new agents, and let the cats and dogs, pigeons and frogs, rats, rabbits and guinea-pigs, have a rest. There is no telling how much human vivisection would add to the development of scientific medicine, nor how enduring the martyr-memories of those who thus offered themselves upon its altar.

But even this diversion is not large enough to sensibly diminish the great current of American doctors, nor are we sanguine that all the means suggested, could they be combined, would suffice. Just as we were about despairing and ready to give up the problem as insoluble, we chanced upon this concluding sentence of one of the papers in the Transac-

tions of the Philadelphia International Medical Congress:—"There are reasons why pharmacy should be regarded as a specialty within the general bounds of the medical profession." Here is the very opening for fifty or a hundred thousand doctors; they and they only can fill it, as certainly as did Martius Curtius close that horrid cavern in the Forum which hitherto had devoured vast quantities of earth, and yet was not full. Let one-third of the medical profession become pharmacists. It will soon come to pass that every well regulated drug store will have one or more doctors dispensing its calomel and candies, its soap and syringes, its perfumes and plasters, its senna and salts, and all sorts of dye-stuffs. Indeed, a drug store without a doctor will be as abnormal as a king without a crown, a lady without a "bang," or a dog without a bone.

But in the midst of these speculations the vexatious thought has come that possibly we have found a remedy without understanding the disease; we have been working at the right leg, when it was the left that needed attention. Who knows but the real difficulty is, not as to the number of doctors in the United States, but as to the number of people—not too many of the former, but too few of the latter! Then the question comes as to how the population is to be increased; but this opens too wide a field, at least for present consideration.

WITH OR WITHOUT AN N.?

My Dear Dr. Parvin:—The twenty-eighth volume of the transactions of the American Medical Association, just come to hand, contains the address in Practice of Medicine, by the president of that section, P. G. Robinson, M. D., of St. Louis; and one division of the address is devoted to the consideration of the medicinal qualities of the yellow (false) jasmine, which he spells—giving its botanical name—*gelseminum sempervirens*. This orthography I had supposed was obsolete. Webster and Worcester both spell it *gelsemium*, and both pronounce it *gelse'mium*; while the United States Pharmaco-

pœia gives the same orthography, but scores the pronunciation gelsem'ium. All these follow Gray in the orthography of the word, and so do most scientific men, I believe. But Michaux and Pursh spell it gelseminum, and the American Dispensatory and all (I believe) of the Eclectic fraternity follow them, pronouncing it gelsemī'num. As the Eclectics were the leaders in its use as a medical agent in the practice of physicians, both their orthography and pronunciation became widespread before the drug was introduced into scientific medicine; but since such introduction it has been my impression that their methods had been abandoned, and I was surprised to find that Dr. Robinson spelled it gelseminum. Nevertheless he may be right, and as the remedy is likely, in the future, to assume a high importance, I ask you to authoritatively announce its correct orthography and pronunciation. The etymon of the word I have not been able to find; perhaps you have a more fruitful field for such research.

Richmond, Ind., Jan., 1878.

J. F. H.

Our Richmond friend we believe correct in his criticism; the word is gelsemium, not gelseminum. Other authorities in botany beside Gray give gelsemium, *e. g.*, Kochler, Professor of Botany in the College of Pharmacy of the city of New York. So, too, we find gelsemium in the great work of Maout and Decaisne, translated and published in London in 1873.

Littre, *Dictionnaire de la Langue Francaise*, Paris, 1873, gives the etymology of the word as follows:—Spanish, *jasmin*; Italian, *gelsimo*, from the Arabic *iâsmin*.

In Richardson's dictionary we find that the word is derived from the Greek *ιάσμη*. This, according to Lidell and Scott, was "a Persian perfume, perhaps oil of jasmin." In view of this, which we believe to be the true etymology, there can be no good reason for introducing n into the word. So, too, the Greek *eta*, the final letter of the original, would seem to suggest the pronunciation of Webster and of Worcester, rather than that of the United States Pharmacopœia.

THE LATE LUNSFORD P. YANDELL, M. D.—On the fourth day of February, 1878, Dr. L. P. Vandell, in his seventy-third year, departed this life. ☞ The death of this eminent and venerable medical teacher, this industrious author, this kind friend, this christian gentleman, demands more than a hurried tribute to his character and history, to his virtues and fame. But such tribute is "all that we can now give; and with less reluctance we do it thus imperfectly, because trusting that in the near future another and abler pen will compensate present imperfections, supply present deficiencies.

Dr. Vandell was born in Tennessee, and his professional education was commenced in the office of his father, an able and eminent physician, and continued at Lexington, and then at Baltimore: at the latter city he was graduated in 1825. After six years' practice in Tennessee, he became a professor in Transylvania University. From Lexington he removed to Louisville in 1837, upon the organization of the medical department of the University. No one contributed more to the success of this school; his name and fame are part of its history.

Resigning his chair in the Louisville University in 1859, he removed to Memphis, and accepted a professorship in the medical school in that city. As a medical teacher it will be seen he was connected with three different schools. Not only so, but he occupied three different departments, viz., chemistry, materia medica, and physiology. That he manifested great ability as a teacher, not only making his instructions thorough and clear, but also was possessed of a fervid eloquence and a graceful rhetoric, was the general testimony of his students. In 1862, while living in Memphis, he entered the Presbyterian ministry, and for a time had a pastoral charge. In 1867 he returned to Louisville, and resumed the practice of medicine.

Dr. Vandell's contributions to medical literature have been abundant. He was editor of the *Transylvania Journal of Medicine*, and subsequently of the *Western Journal of Medicine and Surgery*. In addition to editorial work, he contrib-

uted original papers to these, and to other medical periodicals since their day. The readers of the *American Practitioner* have been greatly favored in having presented them, in the form of reviews and of original papers, almost all of the contributions to medical literature he made during the last few years. His paper in this number of our journal is worthy the most careful reading, and in form and matter deserves rank among the best medical essays.* Probably Dr. Vandell's most elaborate published work was the Address on Medical Literature before the Philadelphia International Medical Congress. It is marked by the usual characteristics of the author's composition—patient industry, great research, calm and just judgment, clear and graceful style.

Relating to Dr. Vandell's final hours, we make the following extract from a letter of Dr. D. W. Vandell:

He died in the full possession of all his faculties. He said, when asked if he had anything special to say, "No, nothing. I have provided for matters here. David knows my wishes as to that. And as to the hereafter I have left that all to my Redeemer. I should have liked to live a few years longer, to finish my book and see how it was received. But that is no great matter." During Sunday night he grew restless, and some pain recurred, when he asked for opium. A short while after taking it he remarked, "What a wonderful drug it is. It is, indeed, *magnum donum Dei*." I added, "De Quincey, you remember, said that opium was the

*In a note accompanying the MSS. of this paper, he remarked:—"This probably is the last of my contributions to medical journalism." What a true prophecy was unconsciously made! The last line he ever wrote was in regard to this paper. At noon on the Thursday before he died, feeling somewhat better—he had then been sick some days—he wrote his son thus, "I should like to see the proof of my article on Old—"; here his hand faltered, and the rest of the sentence was illegible. This incident reminds us of a passage in the translator's preface to Sydenham's *Practice*: the translation was published in London, 1711. Sydenham was at death five years younger than Dr. Vandell, but the characters of these men present many points of similarity, and the passage we quote might apply equally well to each:—"This worthy man was always busy in improving the practice of physick, even then when he was stepping on the threshold of the other world, and, like the great Archimedes, would not suffer himself to be interrupted by anything but resistless fate."

only universal, catholic anodyne." "Yes," he replied, "but Sydenham said it better—*magnum donum Dei*;" and the words swelled as he uttered them, as the Latin always did, you know, on his tongue. He was tranquilized by the opium, and slept much during the remainder of the night, but evidently grew more and more feeble, and continued to sink till, when raising up to take a sip of water, his head fell gently back, and he ceased to breathe at ten minutes before nine o'clock, Monday, February 4th.

Of Dr. Yandell personally, of him as a man, limited space permits us to say but a few words. His was a well-poised, symmetrical character. Not often does our imperfect humanity unfold a better type than in him. A stoic sternness, if need be, in the discharge of duty; a bravery that never failed in difficulty or faltered in danger; a personal integrity too bright for stain, too strong for temptation; a woman's tenderness of sympathy and quickness of help for the suffering; a child's simplicity of ways and disposition; an industry that was tireless and patient; a graceful dignity and genial courtesy, retiring rather than obtrusive; a wise counselor and a faithful friend; humility dwelt with him as she does with all who are truly learned and great, and honor and truth were his constant companions. Such is his picture as he appears to us with the evening sun shedding its softened light upon him, and as we learn it from what others have said who knew him when that sun was in its meridian.

The lesson of this man's life, and the lesson of this man's death—what are they? Only the blind can not see them; only the foolish will not learn them.

DEATH OF DR. PEASLEE.—On the twenty-first of January Dr. Edmund R. Peaslee died at New York of pneumonia, after a brief illness. Thus has passed away one of the most scholarly, industrious and eminent of American physicians. His great work upon Ovarian Tumors, without an equal in the English, or probably any other language, would be enough to assure his fame for generations. Those who knew him and met him in professional gatherings, will greatly miss him; his

wise counsels, his extensive learning, his kind and courteous manners, won him universal respect and love. That slender form, that pale face, from which a soul of kindness and of strength looked out, that snow-white hair, those low but earnest and persuasive tones, are of the past in fact, but of the present in the memory of many an American physician.

TO CONTRIBUTORS.—Papers for the *American Practitioner* have been received from Drs. F. J. Bumstead, J. A. Ockerlony, J. R. Weist, J. L. Thompson, J. C. Reeve, A. A. Faris, and G. W. H. Kemper. All of these papers will, if possible, appear in our next issue. Some other papers have also been received. We thank all our correspondents for their kindness, and shall make use of their favors as soon as possible. We wish a largely increased subscription list were certain, so that a large and permanent increase in the number of pages of our journal could at once be made.

EMMET'S CURETTE FORCEPS.—In the *American Practitioner*, April, 1877, we gave a representation and description of this valuable instrument, and we have had frequent letters from physicians asking where it could be obtained. In reply to these we answer, by writing to Mr. Leonard, of Sheppard and Dudley, 150 William street, New York City.

DEATH OF WILLIAM STOKES, M. D., F. R. S.—This eminent physician died in Dublin on the 7th of January, in his seventy-fourth year.

TO SUBSCRIBERS.—We hope all will realize the importance of remitting their subscriptions as soon as possible. Thanks to those who have sent us new subscribers: we wish ever so many more would do likewise.

THE AMERICAN PRACTITIONER.

MARCH, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

RÉSUMÉ OF THE TREATMENT OF GONORRHŒAL EPIDIDYMITIS.

BY F. J. BUMSTEAD, M. D.

Late Professor of Venereal Diseases at the College of Physicians and Surgeons, New York.

The remedies proposed for the relief of gonorrhœal epididymitis are legion in number, too numerous, indeed, even to be recorded in full in these pages. Some idea of their diversity may be obtained by consulting the columns of the *Lancet* for 1876, when they were called out by a discussion upon the value of puncture of the testicle for this affection. It may be said, in general, that the means now adopted are much less severe and heroic than a few years ago, and, we have reason to believe, are attended with better results. I propose, first, to give briefly my own plan of treatment, and then enumerate a few of the others which have been recommended.

Upon the slightest indication of an attack of swelled testicle, absolute rest in the recumbent posture should be enjoined. The bed is the only place for the patient, since lying dressed

upon the lounge will not remove the constriction exercised by the clothes, nor permit of appropriate local applications. The scrotal organs must also be well supported, and this is better done by a handkerchief sling, or by a broad strip of adhesive plaster passed under the scrotum and made to adhere to the thighs, than by a suspensory bandage as found in the shops. It is well to unload the bowels by a free cathartic, as three compound cathartic pills or a bottle of citrate of magnesia. The nauseants and emetics formerly employed are now generally abandoned, except perhaps with plethoric subjects, or in cases of general febrile disturbance; and even then the exhibition of aconite may well be substituted. An opiate may be required at night to secure sleep. The diet should, of course, be restricted. Meanwhile the patient has enough to attend to without bothering with the antiblennorrhagics and injections which he may have been using for the cure of his urethritis.

As to local applications, relief will often be experienced by keeping the part covered with a single thickness of linen constantly wet with a solution of the muriate of ammonia, half an ounce to a pint of water. Better still, especially at night, is to smear the scrotum freely with the following mixture:

℞ Ext. belladonnæ,	. . . . .	3 ij
Glycerinæ,	. . . . .	3 ss
Aquæ,	. . . . .	3 j. M.

And cover it with a piece of lint moistened in the same. The old-fashioned lead and opium wash may likewise be of service. I have also used with very good effect, in some instances, a simple procedure recommended by Dr. Edwin Lloyd, of Worksop, Notts county, England. The testicle is first immersed in water as hot as can be borne, and kept in it from ten to fifteen minutes, immediately to be followed by a stream of cold water poured over it from a height for five minutes. This should be repeated two or three times a day.

Under these measures the epididymitis may subside, but, probably in the majority of cases, the tunica vaginalis becomes involved, and more or less fluid may be detected in

this sac. And here, in our experience, comes in the golden opportunity of giving almost instantaneous relief, and cutting off the further progress of the disease. The means we refer to consists in the multiple punctures of the scrotum so highly recommended by Velpeau. In performing this slight operation, the tumor is rendered tense by grasping it posteriorly with the left hand, as in making the puncture for hydrocele. With the right hand the surgeon, holding the blade of a common lancet between his thumb and forefinger, at the distance of about one-half an inch from its point, makes from four to six rapid plunges into the tense surface of the scrotum, still retaining his hold with the left hand so as to preserve the parallelism of the incisions in the skin and serous membrane. If there be much fluid in the sac, it will spirt out to some distance; in other instances, only a few drops of serum, mixed with a little blood, escape. In either case, the relief to the sufferings of the patient is most marked, and the further progress of the disease is at once arrested. The pain produced by this operation is so slight as not to *require* an anæsthetic; but if the patient be timid, I usually give him a few whiffs of ether, or let him inhale the nitrous oxide gas, which is now put up in a condensed form in small cylinders, and is kept on hand by most surgeons for this and like minor operations. So great is my confidence in the effect of these incisions, that I do not hesitate to tell a patient that if he will submit to them he can be on his feet again in two or three days. I have never seen the slightest ill effect from them, although Montanier* reports a case in which a simple incision into the tunica vaginalis was followed by excessive hemorrhage very difficult to control, and which even endangered life. Probably some scrotal artery of considerable size was wounded, but this must be a very rare occurrence.

We proceed now to mention other modes of treatment recommended.

Sedatives.—These enter, to a greater or less extent, into many of the plans of treatment proposed, but they constitute

* Gaz. des Hôpitaux, 1858, p. 106.

the basis of all treatment as recommended by that accurate observer, Mr. J. L. Milton, and some others. Mr. Milton* says:—"The surgeon's first object is to arrest the *pain*; *with this the inflammation stops.*"† For this purpose he prefers morphia in doses of a quarter to half a grain two or three times a day, and in very severe cases gives three-quarters of a grain once or twice in succession. In the way of external applications, Mr. Milton recommends the following lotion:

℞. Liq. ammon. acetatis, ℥ j
 Spir. ætheris, ℥ iss
 Mist. camphor., ℥ iiiss.

M. et sig. To be applied by means of a single fold of linen, which is to be kept continuously wet with the fluid.

I have never myself tried the effects of opiates alone.

The application of the oleate of mercury with morphia is suggested by Prof. Marshall, in the *Lancet* of May 25, 1872.

Dr. Ed. Warren, late chief surgeon of the Egyptian army, injects beneath the tunica vaginalis, by means of a hypodermic syringe, from one-sixth to one-quarter of a grain of morphia; then straps the testicle firmly with adhesive plaster, and administers internally twenty grains of the bromide of potassium, with fifteen drops of the tincture of gelsemium semper-virens and a drachm of the fluid extract of ergot, in half an ounce of cinnamon water, every third hour. The injection of morphia is to be repeated at intervals of eight hours, if necessary, until a grain has been administered. Relief is promised in twenty-four hours; if it fail to occur, discontinue the injections and apply a narrow blister on either thigh, directly over the femoral vessels. (*London Lancet.*)

Pulsatilla.—Drs. Piffard and Fox, of New York, have confidence in this drug, much used by the homœopaths in the treatment of epididymitis. On inquiry, I learn that they give a single drop of the "mother tincture" every one or two hours, and they state that the pain is speedily removed.‡

* Pathology and Treatment of Gonorrhœa, fourth edition, p. 221.

† The italics are in the original.

‡ See Medical Record of January 12, 1878, p. 39.

Blood-letting.—Venesection in epididymitis is, of course, a thing of the past. The application of leeches to the scrotum has also been well nigh abandoned. They may be called for, however, when the inflammation wholly or chiefly involves the cord, and should then be placed directly over the external abdominal ring.

Ice.—The application of ice has been recommended by several authorities, and especially by M. Diday;* but, according to this author, in order to be successful, it must be done with true French precision. The following are his directions: Two hogs' bladders are to be soaked for a few minutes, in order to soften them and make them pliant. Introduce into each, through their openings, enlarged by a stroke of the scissors, four or five pieces of ice as large as a goose's egg. Before tying the necks of the bladders, thoroughly expel the air from them, so that they will the better adapt themselves to the surfaces to which they are to be applied.

The scrotum should, of course, be elevated by a sling bandage or otherwise. Beneath it is to be placed one of these bladders filled with ice, at the same time protecting the thighs and perineum from the "impression of cold" by the interposition of napkins. The second bladder naturally goes on top, and is to be extended as far as the inguinal ring.

To enter farther into the details given by M. Diday seems unnecessary, since they are such as will suggest themselves to any one with common sense, unless it is important to mention that "the ice should be renewed when melted!"

According to M. Diday, the ice should remain on constantly, night and day, for at least eighteen hours, but in the majority of cases the application for forty-eight consecutive hours is required. After its removal we are to taper off with the application of cold wet cloths, lest the return to the natural heat of these parts should cause too great a shock! This method, it is stated, will supersede all others, even in the most desperate cases of swelled testicle.

Judging from our personal experience, or rather from our

* *Annales de Derm. et de la Syph.*, 1869.

personal observation, the use of cold applications, and especially of ice, in the manner recommended by our highly respected friend, M. Diday, will be found to be of value in some cases of gonorrhœal epididymitis, especially at the outset of the attack; but they will prove, in the majority of instances, insufficient. One rule as to their continuance is enough: if they do not afford relief within two hours, leave them off and seek other means.

Poultices.—If cold fails, then heat may be tried in the form of hot poultices—an old-fashioned mode of treatment, to be sure, but one which is doubtless of service in some cases when the patient is unwilling to submit to puncture of the tunica vaginalis. In these poultices, tobacco found a legitimate use. An ounce or so of “fine cut” was to be mixed in half a pint of hot water, which was brought to the boiling point, while stirring the mixture and adding gradually ground flaxseed or ground elm-bark, so as to give it the proper consistency. The poultice should be large enough to envelop the whole testicle; its surface be covered by a layer of thin muslin upon which laudanum may be sprinkled, and a piece of oil-silk applied over the outer surface to protect the bed-clothes. Poultices of tansy, hyoscyamus and belladonna, have also been recommended; while Besnier (*Bull. Gén. de Thérapeutique*, Feb. 1870,) advises that the scrotum, carefully elevated, should be continuously enveloped by compresses saturated in a concentrated infusion of the leaves of digitalis, applied either hot or cold as may be pleasant to the patient.

Strapping the testicle.—This procedure is much less used now than formerly. It was first suggested by Dr. Fricke,* of Hamburg, and is sometimes called by his name. It is only applicable after the swelling has been reduced, the pain dissipated, and when the parts will bear gentle handling. When an indolent swelling remains and absorption is tardy, I not unfrequently resort to it. The rubber adhesive plaster, or the

* Dr. Fricke's paper was published in the *Zeitschrift für die gesammte Medicin.* B. j. h. 1, Hamburg, 1836. A translation of it appeared in the *British and Foreign Medical Review*, Vol. I, 1836, p. 253.

mercurial plaster prepared by Seabury and Johnson, of New York, is far more cleanly than the ordinary adhesive plaster; or, when a sedative effect is also desired, we may employ a mixture of two parts of adhesive plaster with one of extract of belladonna, spread upon thin leather.

Before applying the plaster, the hair should be carefully removed from the scrotum with a razor or scissors. The plaster is to be cut into strips about three-quarters of an inch in width. The testicle is now to be pressed down to the lower portion of the sac, and held there by the thumb and forefinger of the left hand, while a strip is placed firmly round the affected side of the scrotum, just below the abdominal ring. Successive strips are added, each one overlapping the preceding for one-third its width, and care being taken that they all fit smoothly, until all but the bottom of the testicle is enveloped; the latter should then be covered with strips applied longitudinally, like the bottom of a wicker basket, and finally the whole is to be secured by a long narrow strip carried circularly several times around the tumor. In the course of from twelve to twenty-four hours, the plaster will be found to be loosened by the decrease of the swelling, when it should be removed and fresh strips applied. The compression should be continued until the testis has nearly returned to its normal dimensions, and in the meantime the parts still be supported by a bandage. Cullerier states that strapping the testicle has been entirely abandoned in France.

Prof. Thiry, of Brussels, the most eminent syphilographer of Belgium, has been publishing a long series of lectures on gonorrhœal epididymitis in the *Presse Médicale Belge*, 1876-7, in which he strongly advocates the well nigh abandoned strapping. He claims that it has fallen into disuse, chiefly because it has been reserved for the stage of decline after the inflammatory symptoms have subsided, while, in his opinion, the time for its application is the "*période de stade*," *i. e.*, when the inflammation has fully reached its height. When called to a case, he first ascertains if the general febrile disturbance has subsided, and any trouble in the digestive organs has dis-

appeared. If not, he gives an emetic, "which soon makes that all right," and proceeds at once to strapping. He, however, rejects all plasters for this purpose, and uses only narrow strips of muslin which are made to envelop the testicle in six to eight layers. The mode of application is about the same as that in general use, except that each strip when applied is finally to be brought back to the strip encircling the neck of the scrotum. The whole is retained in place by spreading starch-paste on the last two layers applied.

Antimonial frictions.—This method was introduced in Strasbourg, by M. Michel, in 1865. It consists in making minute punctures along the cord from the scrotum to the external abdominal ring, and then repeatedly rubbing in an antimonial ointment (*pommade d'Autenrieth*),* until pustules appear, the coalescence of which, however, should be avoided, lest ugly cicatrices result. The pain is said to cease in forty-eight hours, and a cure to be effected toward the end of thirty days. I think we can beat that! (*Lyon Médical*, from *Sud. Médicale*, Nos. I and II, 1870.)

Lotions of nitrate of silver.—Dr. Marc Girard applies to the affected testicle lint soaked in a solution of nitrate of silver, one part to one hundred of water. In five cases treated in this way, at the military hospital of Gand, the pain ceased in about twenty-four hours, and the average length of treatment was six days. The mode of action of the remedy is unknown; it is not by revulsion, since it does not cause any pain but merely a pleasant sensation of heat, and it does no more to the skin than slightly discolor it. (*Archiv. Méd. des Belges*, August, 1870.)

Collodion and ether.—The application of collodion to the scrotum as a means of compression, suggested by M. Bonnafont, was a subject of discussion before the Academy of Medicine in Paris, in 1854, and a trial was made of it by Ricord and others, who reported against it. Dr. Assadorian† recom-

* R Antimonii et potassii tartratis, . . . one part.
Axungię benzoatę, . . . three parts. M.

† American Journal of Syphilography and Dermatology, Vol. I, p. 216.

mends the local application of sulphuric ether, a piece of lint kept constantly wet with this fluid being laid over the inflamed testicle and cord, and the bed-clothes being elevated by a hoop, so as to favor free evaporation.

Punctures.—I have already spoken of the multiple punctures proposed by Velpeau, and expressed my confidence in them for the relief of swelled testicle, no matter how small the quantity of fluid contained within the tunica vaginalis. This procedure, which is also highly recommended by Cullerier, is, I believe, sufficient for the relief of all cases, without resort to any deeper incision.

The late M. Vidal (de Cassis) revived an operation which is said to have originated with a French surgeon by the name of Petit, who published a work on venereal in 1812. This operation is simply an extension into the substance of the testicle of the incisions recommended by Velpeau. Vidal states that he first employed these incisions in swelled testicle when the body of the testicle was involved, to which form of the disease he gives the name of parénchymatous orchitis. His design was, by dividing the tunica albuginea to relieve the constriction exercised by this fibrous tunic upon its inflamed contents. Finding, as he says, that the operation was unattended by any unpleasant result, and that it relieved the pain and hastened resolution, he extended it to the more frequent cases in which the epididymis is alone attacked, and found the effect equally favorable. In his work on venereal, this author states that he has performed this operation with impunity in four hundred cases, and claims for it preference to all other modes of treatment. His directions as to the manner of performing it, are to incise the tunica albuginea with a bistoury or lancet passed through the scrotum and tunica vaginalis, to the extent of six-tenths of an inch (*un centimètre et demi*), and to penetrate the parenchyma of the testicle to the depth of less than three-tenths of an inch (*de moins de moitié*). Only one puncture of this kind is to be made. In spite of M. Vidal's testimony in its favor, we can hardly believe this operation entirely devoid of danger, espe-

cially since the report of four cases observed by a single surgeon, M. Demarquay, in which the substance of the testicle gradually oozed from the incision in filaments, and in three of which the testicle was totally lost.* Diday also reports two cases in which atrophy of the testicle followed Vidal's incision. (*Annales de Derm. et de la Syph.*, 1869.) If resorted to at all, it should probably be reserved for those cases in which it was first used, viz., where the body of the testicle is extensively implicated.

Mr. Henry Smith,† surgeon to King's College Hospital, London, has advocated the same treatment by incision into the body of the testicle, and states that he has met "with results which have astonished himself and his numerous pupils." Mr. Smith's recommendation has excited a lively discussion in some of the London medical journals.

Numerous other topical remedies have been recommended in gonorrhœal epididymitis, but many of them are not worthy of mention. Inunctions of mercurial ointment upon the scrotum may relieve the pain, but are liable to cause salivation. They may be used with caution in those cases in which the acute symptoms have subsided, leaving chronic engorgement of the epididymis.

Furneaux Jordan‡ treats epididymitis by the application to the affected side of the scrotum of a solution of nitrate of silver (5ij ad aquæ 5i), followed by gentle pressure.

Prof. W. Boeck, of Christiana, speaks highly of a curious mode of treatment, viz., the injection of a few drops of a solution of nitrate of silver into the prostatic urethra, and states that the pain and swelling are thus relieved in twenty-four hours, provided they are not dependent upon effusion into the tunica vagina vaginalis. (Oral Com.)

Dr. L. D. Waterman, of Indianapolis, reports§ a plan of

* British and Foreign Medico-Chirurgical Review, American edition, April, 1859, from the Bulletin de Thérapeutique, tome lv., p. 549.

† London Lancet, 1864.

‡ British Medical Journal, as quoted in New York Journal of Medicine, October, 1869, p. 63.

§ The Practitioner, November, 1876, p. 334.

treatment which he states has been eminently successful in his hands and others. He administers internally acetate of potassa with acetate of morphia, the latter so graduated as to secure full, but not excessive, anodyne effects. Locally, he employs a liniment composed of

Tinct. iodinii,	Tinct. opii,	
Aq. ammoniæ,	Ol. olivæ.	M.

The proportions of the iodine and ammonia are so graduated that, when a woollen cloth, saturated hourly with the liniment, is kept constantly applied to the scrotum, the effect will be bearable and only cause half blistering of the skin or exfoliation, with a stinging sensation for a short time after application. The pain is said to cease, sometimes in three hours, always within twenty-four, and the effusion to be rapidly absorbed without tapping.

Iodoform.—Dr. Julian Alvarez,* of Palma, Majorca, reports four cases of epididymitis, successfully treated by the application of iodoform ointment. He claims that this agent calms the pain in the course of one or two hours; that it exercises a very marked resolvent action, and materially shortens the duration of the disease. He uses, according to the intensity of the inflammation, an ointment containing one to two grammes of iodoform to the ounce of lard.

The induration of the epididymis, which is usually left behind after the subsidence of the acute symptoms of an attack of swelled testicle, will sometimes disappear spontaneously. If it is inclined to persist, however, the earlier it is attacked the better, for the chances of success are certainly superior while the plastic material is not yet fully organized. If the indurated epididymis is still abnormally sensitive to pressure, the application of a few leeches over the cord, repeated several times at intervals of a few days, will be found of service. A small quantity of mercurial ointment should be rubbed into the scrotum morning and night, and the genital organs should be well supported by a suspensory bandage.

Another local application worthy of trial is the iodide of

* *La Independencia Medica*, June 1, 1877.

lead ointment, or an ointment of iodoform, one scruple to half an ounce of lard, the strength of which may be increased: the latter especially has proved of service in our hands. The application should be made directly over the indurated mass. Much is to be expected also from the internal administration of iodide of potassium, which is so powerful an agent in resolving inflammatory products generally.

It is impossible to say how old an induration of the epididymis can be treated with hopes of success. M. Gosselin's cases show that it may disappear after existing for several months, and it is not improbable that a cure may be effected after a much longer period. Where the epididymis on both sides is affected, the attempt should certainly be made, especially if the patient is young and intends to marry. It is a serious question whether the surgeon should inform him of the impotency which his disease may entail, since the effect upon his mind might possibly be most disastrous.

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PULMONARY CONSUMPTION.*

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VARIETIES OF PHTHISIS.

In order that tubercle may be developed, a certain depraved condition of the system is necessary. This state may be produced by an actual existent malady of short duration, or by a long continued illness which has greatly lowered the vital powers, or by an inherited tendency to the disease.

Pulmonary phthisis, then, is divisible into three forms or classes—first, essential; second, acquired; third, accidental.

* d from February No., p. '85.

Essential phthisis is the result of an inherited disposition or diathesis, which, though hastened in its development by external causes, may and generally does develop independently of them. The internal causes upon which it depends are the natural degeneration of families, or the tendency of constitutional maladies to so influence the normal development that in time retrograde metamorphosis, ending in that last manifestation of an exhausted plasmatic form (tubercles), are produced.

By *acquired phthisis* we understand that under the prolonged influence of external conditions, such as mental depression, want of proper nourishment, close confinement, excessive labor, want of pure air, deprivation of light, etc., there may be induced an artificial tuberculosis, a diathesis, which will give rise to a very common form of phthisis.

In *accidental phthisis*, some external influence or agent, sometimes mechanical, has suddenly so impressed itself upon the economy that retrograde metamorphosis of plasmatic tissue immediately results, and the pulmonary inflammation produces, instead of pus, a pyoid caseiform substance, very destructive to plasmatic material, out of which this neoplasm—imperfect tubercle—is formed, soon producing about itself the true or granular tubercle.

These three forms of phthisis, though dissimilar, not to say distinct from each other at the beginning, later on resemble each other so closely, that they present the same symptoms and run the same course. For clinical purposes we note their differences, and group them accordingly; but in the interest both of pathology and therapeutics, we must regard them as only varieties of one disease—*pulmonary consumption*.

ESSENTIAL PHTHISIS.

Essential phthisis is a constitutional and organic pathological condition (*misère physiologique* of Boucharlat), in which the plastic tissues, instead of being reproduced, have a tendency to change into miserable neoplasms, in which neither life,

organization, nor a trace of circulation, exists. This is the phthisis of the ancients, the decline, called also pulmonary consumption when the tubercles, the characteristic of this affection, occupy their most common seat, the lungs.

Until quite recently, the doctrine of the hereditary nature of tubercle was almost universally believed. However, when we study the complex phenomena, and examine carefully the contradictory opinions which have been expressed concerning this influence, we gradually lose faith in its correctness, and finally doubt its influence. Even if we were to admit the truth of the dogma of hereditary transmission, statistics would contradict us; for of three hundred and seventy-four cases occurring in old women at the Salpêtrière Hospital, reported by Piorry,* seventy-eight died without presenting any trace of tubercle, although their parents died from that disease. So Mr. Scott Alison,† physician to the Brompton Hospital, an establishment entirely devoted to the treatment of pulmonary phthisis, states that, out of six hundred and three cases, he has only seen the influence manifested in nineteen cases. We can not look upon pulmonary phthisis as hereditary, and we are supported in this view by the observation of Pidoux,‡ that there is not more than twenty-five per cent. of those born of phthisical parents who themselves become phthisical. In one thousand cases, Dr. Williams,§ of London, says that the purely hereditary percentage was only twelve.

It is not tuberculosis that causes the offspring to inherit pulmonary phthisis. It is the influence which that malady exerts upon the constitution of the parent to weaken it, and, through the parent, the constitution of the child. It is this weakness, this want of power to resist disease, and not the direct transmission of the tubercle itself, that so often aids in its development in the offspring of tuberculous parents. Very

* *Pathologie Iatrique et Médicale*, 1841 1851; and *Clinique Médicale de l'Hôpital de la Pitié et de l'Hospice de la Salpêtrière*.

† *Transactions of Medico-Chirurgical Society of Edinburgh*, 1824.

‡ In *Etud. Gen. et Prat.*, 1873, p. 97, the author says twenty per cent. In a paper read before *Société Hydrologie*, 1864, twenty-five per cent.

§ *Pulmonary Consumption*, London, 1871, p. 115.

often this weakness of the offspring is due to other disease; and in these vitiated constitutions, from whatever cause arising, we always find a less power of resisting the encroachment of disease. (Niemeyer.*)

All practitioners have observed the fact that individuals are often found who, notwithstanding they are the offspring of parents in whom tuberculosis was well marked, throughout a long life never exhibited any symptoms of the disease; and, on the other hand, individual members of a family, without suffering any undue hardship or exposure, and without any appreciable cause, have become the victims of this malady.

In truth, it seems as if each being had his own individuality in regard to health and disease. He may inherit dispositions from one or both parents or from remote ancestors, or he may be so original as to differ entirely from his parents, and possess an entirely new predisposition; thus he may inherit disease, or he may develop it *de novo*.

“To-day we can affirm, without fear of denial,” says Devay,† “that it is to hereditary transmission that is due, in a great measure, the fatal propagation of this disease—tuberculosis; but, far from admitting, with certain authors, that parents transmit to their children an organic predisposition, which must, at a certain time of life, necessarily give rise to the development of tubercles, we think that phthisis is hereditary only in so far that the tuberculous parent may transmit to his offspring an organization which is more prone to be influenced by the causes which give rise to tubercle than another.” We believe that this view is the only logical one, and that the theory of direct transmission is not only in opposition to reason, but to the results of clinical observation.

What are we to understand by hereditary transmission? Do the offspring of persons suffering from phthisis inherit the disease itself, or do they have impressed upon the organism a predisposition to be influenced by all causes which would produce the disease? If disease can be transmitted directly, it

* Text-Book of Practical Medicine, Vol. I, p. 213.

† Du Danger des Mariages Consanguins, 1857.

is necessary that the germ of the disease be transmitted at the same time as the germ of life itself. This germ must be the agent producing the disease, if phthisis is transmitted as syphilis is; for the child born of syphilitic parents is impregnated with the virus from the beginning; he is born syphilitic, and does not become so from the action of extraneous causes. He has within himself the cause of the disease. This is not the case in tuberculosis. Very often a man born of phthisical parents enjoys robust health for years, and is then suddenly attacked by tuberculosis. The child of syphilitic parents is syphilitic at his birth; the child of phthisical parents may develop tuberculosis at five, ten, or fifteen years later. And we may well ask, with Villemin,* how will the upholders of the theory of hereditary transmission explain why the disease should remain latent so long?

“Man and animals,” says Rayer,† “may have at birth an hereditary disposition to phthisis, but tubercles are never found in the lungs of the fetus or the new-born of phthisical individuals.”

Baron,‡ physician to the Foundling Hospital, who every year examines the lungs of a great number of children, still-born or dying shortly after birth, assures that he has never yet found tubercles in children but one or two weeks old.

Guizot, in four hundred post mortem examinations of the bodies of new-born infants, failed to find a single deposit of tubercle. Gluze asserts that there is no born tubercle.

If, then, tuberculosis can not be directly transmitted, what meaning are we to attach to the term tubercular diathesis? Is it a disposition which certain organisms have to receive tuberculous deposits, and to furnish them with a soil capable of nourishing them; or is it the power of developing tubercle independently of all germs?

We have already seen that the latter view is opposed to both reason and clinical observation. The former theory,

* *Etud. sur la Tuberculose*, Paris, 1868. Septième Etude.

† *Archives de Médecine*, comp. 1843, tome i, p. 214.

‡ Bidlot *Phthisie Pulmonaire*, p. 166.

that by hereditary transmission we are to understand an aptitude or impressive ability to contract it, is the only tenable one. That such susceptibility exists, is proved by the instances in which the children of parents, in whom the disease exists, perish one after another from the disease. Yes, for us, the hereditary transmission of morbid aptitudes, the organic sensibility of Bichat, seems to be a well established fact, a general law governing the organism. Doubtless constitution is transmissible. The child generally inherits from its parents some of their characteristics; strength will engender strength, feebleness generates feebleness. A father whose nervous system is very highly developed, will find the same thing reproduced in his offspring; while another parent, whose sanguineous system is strongly marked, bequeaths it to his children. This transmission of individual peculiarities is, perhaps, more strongly illustrated by the system of vegetative life. This, the basis and foundation of the organism, is generally inherited with all its qualities and defects.

From the moment that the word diathesis was diverted from its original and etymological signification (*διαθεσις*, a disposition), in order to apply it to certain maladies, confusion and disagreement began; and this state of things has been rendered still worse, by certain physiologists considering the expressions constitutional malady and diathesis as synonymous. Predisposition and disposition are not identical: the first is passive, and indicates simply the power of receiving, or at the very most an aptitude for receiving; the second is active, and indicates a power of production, and direction towards a predetermined end or result.*

Gigot Suard† uses a comparison, borrowed from the moral condition, which is so forcible and so much to the point, that we may introduce it here. “Diathesis or aptitude is no more the disease itself, than a tendency to steal is the theft itself.” Here, also, we must discriminate carefully between the disposition and the predisposition. If a suitable occasion present

* Raynaud. *Nouv. Dict. Med. et Chir. Prat.*, tome xi, p. 419.

† *Pathol. Experim.*, 1875, p. 169.

itself, then the predisposition of the thief may lead him to steal; while if he be disposed to steal, he will seek or make an opportunity. The first is a mere passive state, the second one of activity.

We must, then, use the word diathesis in its original meaning,—a particular disposition of the organism, 'either hereditary or acquired, to contract certain maladies.* It is only in this way that we can account for those cases where children of phthisical parents all suffer from phthisis.

The tuberculous diathesis may then be defined as a greater or less organic disposition of the individual, constitutional or acquired, so that at certain times, and under the influence of certain causes and conditions, tuberculosis is developed in him more readily than in others.

The tuberculous diathesis may render the effect more easily attainable, but it *can not produce tubercle*.

Any part or element which no longer participates in the general or interstitial life of the body, undergoes certain chemical and physiological modifications, which have been termed retrograde metamorphoses or degeneration. This change begins by the organized tissues disintegrating, and their places being supplied by small shining, pearl-like, fatty globules. In the place of true histological elements, we find a detritus composed of fatty matter of variable size, held in suspension in a liquid portion containing albumen and salts. What chemical laws are brought into play in this transformation, we know

* Waldenburg (die Tuberculose die Lungenschwindsucht und Scrofulose, p. 524), cites an instance of six brothers and sisters, who, when they first came under his notice, were strong and blooming, but five out of the six died of phthisis between the ages of twenty-four and thirty-four, the disease beginning in many of them with hemoptysis. The father died of a different complaint, and the mother, up to the age of fifty-three, enjoyed uncommonly good health, being quite free from any symptoms of consumption. She was suddenly attacked with hemoptysis, and expired the same day, her death being subsequent to the commencement of the disease in the children, whose ill-health could not be traced to endemic causes, as they had lived in different localities, and separated from each other. He concludes:—"This is a very remarkable instance where the mother, without having phthisis herself, had the disposition to consumption, and transmitted it to the children, who died of phthisis."

not. All that is evident is, the hydro-carbons of the tissues are broken up, and the fatty matters with the fluid and salts form an emulsion. This fatty formation varies in consistency. Sometimes it resembles cheese, and then receives the name of caseous. The thickening may be produced in two ways:—first, the metamorphosis may take place in organs or parts of organs, rich in solids especially salts, or poor in fluids, as in tubercle; or, second, absorption of the liquid portion may take place, leaving the solid parts, and in either case caseous matter is formed. Absorption of a portion of the fatty material may then follow, and the so called chalky deposits or masses result, and this may continue until all the fat is removed, and a mass of considerable hardness remain.

With the application of the microscope to the examination of the products of tuberculosis, investigators naturally sought for some characteristic element or body, but as they had to deal with the resultant of a disorganization, in which all form of life had disappeared, they concluded that tubercle was an amorphous product devoid of organization. When histological elements were found, as the small gray, semi-transparent granulations, which had not yet undergone completely this metamorphosis, these were regarded as adventitious, and not as elements of the tubercle; and even to-day we have two forms of tuberculosis, founded upon these two pathological stages of the same change.

Dr. Grancher* has, by his critical study on the unity of phthisis, aided materially in dissipating these views. He sums up the chief proceeds, upon which the dualistic school, led by Virchow, base their theory, as follows:

	<i>Tuberculous granulation.</i>	<i>Caseous pneumonia.</i>
Form,	. . . Nodular,	Diffuse.
Origin,	. . . Connective tissue, . . .	Pulmonary epithelium.
Seat,	. . . Extra-alveolar, . . .	Intra-alveolar.
Nature,	. . . Tuberculization, . . .	Inflammation.

A. The definition of tubercle given by Virchow is too limited, since it only comprises the perfect (adult) tuberculous

* Grancher; de l'Unité de la Phthisie; Paris, 1873.

granulation. We must add to the form-type the new nodules, only visible by means of the microscope, and the irregular masses of embryonic cellulo-tissue, which have the same structure and share the same fate as the tubercle, and which are met with in cases of either acute tuberculous granulations or caseous pneumonia, with or without pulmonary granulations. It is advisable, in order to avoid confusion, to adhere to the terminology generally accepted to-day, and to continue to employ the term tubercle to designate the *adult* (perfectly developed) tuberculous granulation, its characteristic representative.

B. If we examine tubercle and caseous pneumonia, as regards their origin, form, seat and nature, we will reach the following conclusions:

1st. Their form is not an absolute differential characteristic, since the former may present itself under an irregular form, as infiltrated tubercle. This infiltration is the best means we have of distinguishing the tubercle due to pneumonia.

2d. If the epithelial origin of the catarrhal cells in which the caseous pneumonia begins, be at all probable, it has not yet been shown that the epithelium does not take part in the production of the small cells of tubercle; and I believe that it has much to do with it.

3d. The seat of both the nodular and infiltrated tubercle does not differ from that of caseous pneumonia. In both tubercle and pneumonia, the alveoli are filled with the cells produced at the expense of the walls. In tubercle there is an agglomeration of small coherent cells; while in pneumonia, or at least at the beginning, the cells are larger, and float in the alveolar spaces.

4th. That there is any difference in the nature of the two products, anatomically or pathologically, is far from being proved. All that can be said to be known is, that in phthisis there are found in the lung:

(*a.*) Neoplasms, cellulo-embryonic, either nodular or infiltrated. (*b.*) Large catarrhal cells, at the beginning of caseous pneumonia.

This is sufficient to prove the existence of two forms of one disease, but not that of two different maladies. On the other hand, there are many reasons in favor of the unity of phthisis; the common duration of the two products; the caseous degeneration of both; the coincidence of the two lesions; and the results of experiments, as inoculation of caseous matter produce at one time tubercle, at others caseous pneumonia.

As histology has advanced, it has shown, little by little, the errors of the German school, and phthiseology has returned to a unity in the nature, though not in the forms, of phthisis.

The most competent clinical and histological writers of to-day agree, in seeking the ultimate cause of tubercle, in a perverse or imperfect nutrition. "Daily experience," says Niemeyer,* "teaches us that a bad state of nutrition is usually accompanied by a feeble endurance of noxious influences. Even without special knowledge of the fact, it is usually assumed, *a priori*, that feeble, badly-fed persons are sickly; that they are especially prone to disease, and do not recover as speedily from its attacks."

Thus, while pathological anatomy, strengthened by histological researches, teaches us, on the one hand, that tubercle is but a normal element, altered, decomposed and mummified, clinical observation points it out as a result of vitiated nutrition. Some of the later writers upon tubercle—Bennett, Bouchardat, Piorry, etc.—have not only ascribed a defective nutrition as its cause, but have even gone further, and attempted to determine the precise change in the digestive functions. Thus, Bennett† declares that a want of power to properly digest and assimilate albuminoid substances and fats, is the cause of tuberculous deposit.

In a diagnostic point of view, nothing gives us a better account of the differences of which tuberculous modifications are susceptible, than the more or less intense and persistent

* Pulmonary Phthisis. Translation, Parke, p. 40.

† Pathol. and Treatment of Pulmonary Consumption. London, 1849, p. 32.

effect experienced by the nutritive functions. We may even go a step further, and state that the alteration of the digestive and assimilative functions is the character proper of the morbid modifications of the organism, upon which depends the development of tubercles.

To what conclusion does a consideration of the symptoms lead us? A pale complexion, yellowish or straw-colored discoloration of the skin, a diminished embonpoint and decrease in strength, a more or less rapid sinking, and a general alteration of all functions; and, finally, a general collapse of the functions, forces, and faculties. Causes and effects then correspond; both diminish the vitality, by diminishing the physical powers of the organism.

This is not a new theory; long before our time physicians and physiologists had recognized the fact, that any agent which tended to diminish the physical energies of the system might become a cause of tubercle. But it is only to-day that these views have received a scientific demonstration.

The physician has but too often the opportunity of observing the insidious march of that terrible failing of the powers of nutrition, under which the organism slowly and silently tuberculizes, until the moment when a congestion or an intercurrent bronchitis, a pleuritic affection, or other accidental cause, locates the trouble in the pulmonary parenchyma.

The weaker one is, the more irritable he becomes; that is to say, the more the organic aggregate is degraded, altered, or morbidly modified, the more it is susceptible, under the influence of the least modifying cause, of undergoing a more considerable degree of alteration, of lesion, and of manifesting a local or general trouble, more sensible and apparent, and capable of showing the idea of a powerful resistance, whilst it is only the effect of a near cessation of life by the organism. That is, *irritation* and *inflammation* are only effects common to all diseases, be they due to an excess or a lack of organic or vital conditions; and they indicate only an excitation, an augmentation, momentary and eventual, relative and local, and not absolute and general, of the organic movement.

There is quite a general belief, founded upon the important part that the blood plays in the functions of the economy, that this morbid state (phthisis) is due to an alteration of this fluid. Blood can be vitiated in two ways, first, through defective absorption of, or failure to introduce into it, the materials necessary to its constitution;* second, through defective excretion, or failure to remove the deleterious products.†

Both chemical and microscopical examinations have failed to show any change in the composition of the blood in phthisis. (Andral,‡ Piorry.§) Experimental physiology has demonstrated that if the blood be alone modified, the tissues remaining normal, then the latter act as purifying agents and assimilate the purified material. (Lebert,|| Brown-Séguard.***) If the tissues had no influence upon this fluid, we would not have pathological but toxical effects, such as those obtained with curare, ammoniacal salts, and carbon oxides. (Claude Bernard.††)

Hence, the cause of the production of tubercles will not be found in an altered condition of the blood, but in a special change in nutrition. I say special, because through defective nutrition, such disorders as chlorosis, dyspepsia, hypochondriasis, cancer, etc., are produced. Nutrition may be very defective, and yet tubercle may not be developed. The direct organ of nutrition is the lymphatic system (Pidoux), which is divisible into three parts:—first, the lymphatic, or more generally called the connective or plasmatic tissue; second, the lymphatic vessels; third, the ganglia.

Between the prolongations of the fusiform or starry corpus-

* Fourcault. *Causes Générales des Mal. Chron. et Spéciales de la Phthis. Pulmon.* Paris, 1844.

† Turnbull. *An Inquiry into the Curability of Consumption.* London, 1859.

‡ Andral. *Hématologie Pathologique.*

§ Piorry. *Médecine Pratique*, tome iii.

|| Anatomie Pathologique Spéciale et Générale, tome i.

*** Brown-Séguard. *Journal de Physiologie de l'Homme et des Animaux.* Première Année, 1858.

†† Claude Bernard. *Leçons sur les Substances Toxiques et Médicamenteuses*, 1857.

cles of the connective tissue—Robin's cytoblasts—are found irregular spaces called lacunæ, filled with a nutritive fluid, composed of new and used-up lymph, a general blastema, into which the radicles of the lymphatic system dip. By their elective power, the vessels take up those parts of this nutritive fluid, which are to be returned to the venous circulation, and leave the parts necessary to nutrition.

Borden, Bichat, and in our day Virchow, regard mucous and cellular connective tissue as essentially plastic or formative, and consequently as the seat of all neoplasms, whether formative or destructive. Tubercle they regard as formed, like all healthy or morbid growths, immediately in the connective tissue, but at the expense of some of the elements of that tissue, which elements it replaces by others atrophied or pyoid, thus preventing all possibility of reparation. This condition belongs only to tubercle, and when the lungs are the parts affected, gives rise to *pulmonary tuberculous phthisis*.

ACQUIRED PHTHISIS.

By acquired phthisis is understood that under the influence of bad hygienic conditions, or other external causes, acting more or less slowly, sometimes singly, but more often in combination, the individual sees the vital patrimony, received from his ancestors, becoming artificially tainted or infected by the phthisical diathesis, and finds himself exactly in the same condition as the one who had inherited it.

Aretée de Cappodocæ* has described a particular conformation of the body, characterized by a narrow and flat chest, long slender extremities, elevation of the scapulæ, a long neck, existing especially in tall people, and generally indicative of a want of vitality. It is an exceedingly rare thing to find a person of such a conformation reaching the average age of man, without developing phthisis.

Probably the cause of the ravages of phthisis in prisons, and in the army, will be found in mental depression. Accord-

* Aretei Cappodocis, Opera Omnia. Lipsiæ, 1828, p. 95.

ing to Laënnec,* there is no external influence more certain to produce this disease than the cause mentioned, if it be deep and lasting. Bandeus,† chief of the medical service of the French army during the Crimean war, states that the majority of the women in the sultan's harem die young from consumption, produced by an unbounded jealousy.

Dr. Buchanan‡ gives, as one of the most common causes of consumption, a damp atmosphere. The so-called "foul air" contains, besides the unhealthy gases, a large amount of vapor of water. Dr. Bowditch, of Boston, states that certain houses, on account of their dampness, are nests for breeding consumption. Where numbers of people are employed in ill-ventilated, badly-lighted shops, more especially if the atmosphere be damp or dusty, badly clothed and poorly fed as they necessarily must be, we find many cases of phthisis. In all trades or occupations giving rise to fine dust, such as knife or needle-grinding, stone-cutting, cotton-carding, milling, etc., the cause of death will generally be found to be consumption. (Greenhow, § Buhl.||)

A common result of any great disturbance or continued excitement of the generative organs, such as onanism or venereal excess, is phthisis. Both, by their influence upon the nervous system, cause great disturbance of the assimilative functions, and thus prepare the economy for gradual decay. I think that the authors, who have only enumerated these vices among the probable causes of consumption, have not given them the prominence they deserve. Miss Beecher, long ago, warned the mothers of America of the vice which was leading their daughters to the grave, the mad-house, or, worst of all, the brothel.

The suppression of the catamenia, the sudden disappearance of hemorrhoids, the cure of any disease which had pre-

* Auscultation Médiate, tome xi, p. 173.

† Une Mission Médicale en Crimée. *Revue des Deux Mondes*, 1857, p. 633.

‡ Report of the Medical Officer of the Privy Council for 1867.

§ On Chronic Bronchitis. Philadelphia edition, 1869.

|| Tuberculosis and Consumption. Translation. New York, 1874, p. 148.

viously produced a flux from an organ, may prove a cause of tubercle.

Among the causes which have been given as producing phthisis is a too prolonged nursing. According to the observations of Natalis Guillot, each time the child is nursed from eighty to two hundred grammes of milk are abstracted, so that in the course of a day from one thousand to fifteen hundred grammes are removed. Now, according to the analysis of Regnault, ten thousand parts of milk contain three thousand six hundred and ninety-seven parts of mineral salts, of which two thousand two hundred and thirty-two, or two-thirds, are phosphates. The infant removes daily from the system of its nurse, three and a half grammes of phosphates, or more than a kilogramme in the year.

A too abundant catamenial flow exhausts women, impoverishes their blood, and determines an anemic condition with all its evil consequences. The blood is pale, serous, and colors the linen red, with a yellow areola. This species of metrorrhagia is a sign of a weak constitution, and is often followed by tuberculosis. Here we find the primary cause, viz., chlorosis, aggravated at each menstrual period, and daily tending to further impoverish the blood.

Another cause, and, according to MacCormac,* the only true cause of tubercle, is prebreathed air; for, sooner or later, the uneliminated, because unoxylized, carbonaceous waste will be deposited as tubercle. Without acknowledging that prebreathed air is the only agent capable of producing tubercle, we fully recognize the application of the aphorism of Romazzini,† “such air, such blood.” Those pursuing sedentary occupations are far more liable to phthisis than those whose labor requires them to spend much of their time in the open air.

While doubting that phthisis is transmissible from husband to wife, we believe that it may be propagated from the sick one to those who attend him. Whether or not there be a true

* MacCormac on Consumption. London, 1865.

† *Maladies des Artisans Trad.* Fourcroy, 1778.

miasmatic infection, as some authors feared (Morgagni, Van Zwieten, Morton, Pierre Frank), or others assert (Beaumes,* Staub,† Clark,‡ Dr. Delamarre,§ Buhl||), it is certain that the fatigue, the watching, the confinement in the unwholesome air of the sick room, the chillings of the night, and above all the sad preoccupation, of which Laënnec signaled the power in fostering the inbred tendency to phthisis, and which are unavoidable in similar conditions, are real and powerful causes of a weakening of nutrition.

Let us, then, note carefully what is most singularly striking, that in spite of their number and diversity, all these causes are held together by a common tie. They all lead to an incontestable weakening of the nutritive forces of the organism.

ACCIDENTAL PHTHISIS.

We are justified in regarding tubercle as an accidental product, when we find nothing in the antecedents, nor in the actual state of the subject, to lead to a belief in the existence of a tuberculous diathesis, but, on the other hand, a normal development of thorax, and sometimes even a physique above the average. The accidental conditions which may give rise to tuberculous formations are numerous. To name the most important causes is to indicate the line of treatment, and in that way be of service from a therapeutical point of view. Hence the necessity to subdivide accidental phthisis into, first, inflammatory; second, scrofulous; third, syphilitic; fourth, hydatid; fifth, diabetic; and sixth, arthritic.

INFLAMMATORY PHTHISIS.

We give that name to accidental phthisis, produced by tubercles of an inflammatory origin, in a person free from constitutional taint. When phthisis follows acute pneumonia,

* *Trait. Phthis. Pulmon.*, 1805, tome i, p. 89.

† *Essai sur l'Étiologie des Tubercules Pulmonaires*. Strasbourg, 1835.

‡ *Treatise on Pulmonary Consumption*. London, 1835, p. 238.

§ *Séance du 10 Janvier, 1859, Académie des Sciences, Paris.*

|| *Loc. Cit.*, p. 117.

(interstitial, parenchymatous or croupous,) it is only in the rare cases where, from some cause, resolution has been hindered or prevented.

Chronic pneumonia, and especially broncho-pneumonia, is more often followed by phthisis than the acute parenchymatous inflammation. The fatal influence of chronic pulmonary inflammation is especially shown, when the system is so weakened that it is unable to dispose of the inflammatory exudation or pus which fills the ultimate bronchial ramifications. This is often seen in bronchial catarrh, when accompanied by an abundant mucous or muco-purulent expectoration.

In pleurisy, binding adhesions prevent expansion of the chest, and consequently of the true respiratory system, hurry the heart-beat, derange the digestive organs, prevent proper assimilation of food, depress the vital force, and unless emphysema results precipitates phthisis pulmonalis.*

There are, besides the usual form of phthisis, two others: galloping consumption or phthisis florida, and acute phthisis. The former is again subdivided into the galloping and the rapid, which differ only in this, that galloping has a more hurried march and presents less remissions than the rapid. In both forms the caseous degeneration, and consequently the inflammatory symptoms, are present from the earliest stages. In acute granular phthisis, there are no remissions; its march is always onward, like an acute disease, and it may destroy the sufferer in less than a month. Its onset is sudden, and, there may be neither appreciable cause, diathesis, nor disposition.

It seems fit to introduce here the differential diagnosis, at the bedside, between galloping phthisis and typhoid fever, as given by Dr. Metzguer.†

Galloping phthisis differs from typhoid fever in this, that in the former we observe neither the characteristic tongue of the abdominal typhus, the roseate lenticular spots, nor the gurgling noise in the right iliac fossa; besides, the noise in the

* Leaming; Arch. Scient. and Pract. Med., March, 1873, p. 233.

† Metzguer; Etude Clin. de la Phthisie Galopante. Paris, 1874.

ear and the epistaxis are absent, as a general rule, in phthisis. The thermometer, too, gives us a new means of differential diagnosis between these two affections. We know that the thermometrical curve of typhoid fever is characteristic. In the morning there is remission, incomplete it is true; in the evening, an exacerbation of about one degree (Fahrenheit). The period during which the thermometer gradually rises, lasts about five days. If, on the evening of the first or second day, the temperature is over 102° F., it is not typhoid fever. If, on the evening of the fifth day, the temperature be below 102° F., we have as yet nothing to fear from abdominal typhus. Jaccoud* says that in the granular affection the daily changes are from $2\frac{3}{4}^{\circ}$ to $3\frac{1}{2}^{\circ}$ Fahr.

But there is also another symptom of galloping phthisis, to which attention is called; it is the rapid emaciation, which may, curiously enough, coincide with the preservation of the appetite.

Among the diseases which are most frequently causes of inflammatory phthisis are the exanthemata. Scarlatina, and especially rubeola, as has been most fully demonstrated by Andral† and Michel Levy,‡ are very frequently followed by phthisis. Hooping cough, in very young children, according to Grissolle,§ favors the production of tubercle.

In the treatment of all forms of phthisis, we have to fulfill, at the same time, two opposite indications:

1. To recuperate and fortify the general organism by suitable constitutional treatment.
2. To diminish the local and subdue the general irritation by an antiphlogistic and weakening treatment.

It is the necessity for the fulfillment of both these opposite conditions that has produced so much confusion in the minds of the practitioners regarding the proper treatment, and given rise to almost interminable discussion, as to the nature of phthisis, whether it is of inflammatory or non-inflammatory origin, and whether it should be treated by blood-letting, tar-

* Clinique Médicale. Paris, 1867.

† Gazette Médicale. Paris, 1848.

‡ Clinique Médicale. Paris, 1834.

§ Pathol. Interne. Edition 1865.

tarized antimony, and other depressing measures, or by tonics and a good stimulating regimen. No treatment of tuberculosis can be conducted upon a rational foundation unless it combines, as intimately as possible, not only the similar but also the opposite indications. Thus, though the means adopted are as opposed to each other as they can be, yet both must tend to produce a single result—the return of the organism to its normal condition, and, as a sequel, the cessation of local trouble.

Of all the varieties of accidental phthisis, the inflammatory form is by far the most common; for if we refer to the table given by Scott Alison,* out of six hundred and one cases, two hundred and seventy-seven were due to the influence of cold alone. The disease is characterized by the development of an exudation, which in no way, either as respects origin or local and general effects, differs from the simple inflammatory exudation.

Foremost among antiplastic remedies stands mercury: there are some terms which seem to carry with them a dread, in the minds of the public and even of medical men; none more so than the word calomel. Dr. Leaming† is known among physicians as one of the strongest advocates of this drug; we had best use his own words:—“In extreme cases, those of exceptional violence, or when the amount or extent of exudation is excessive, the powerfully sedative action of calomel may abort the disease so completely, that not a vestige of it will remain; this, too, without any draught upon the life-power of the individual. Twenty, thirty, forty or even sixty grains, placed on the tongue, may be necessary to produce this sedative action. No one but the physician attending can judge of the dose proper to the case. The proper action of the calomel will simply be the disappearance of the grave signs and symptoms. The heart's action will be more regular, fuller, slower. The plastic exudation will rapidly disappear by reabsorption. There will be no purging, no ptyalism, and no exhaustion of

* Medico-Chirurgical Society of Edinburgh, 1824.

† Brown-Séquard; Archives, March, 1873, p. 229.

vital power. I know of nothing so satisfactory in medicine as the proper application of this powerful remedy, when given in the disease needing it, and at the right time. The dose should be given so as not to be repeated. Strike at once; repeated blows may do harm."

In an article on "An abortive form of treatment in diphtheria," Dr. Bayles* says as follows:—"My first intention was, by a vigorous blow, which should resound throughout the whole system, metaphorically speaking, to abort the disease. To accomplish this, I made use of calomel in one courageous dose, given the instant I had decided, with what I had to deal. My dose was never less than ten grains, excepting in infants under one year of age, nor more than thirty. Mixed with pulverized sugar it was given dry upon the tongue, and the mouth was well washed out after it had been swallowed."

Graves, of Dublin,† had, prior to 1840, held the same high opinion of calomel. "But suppose," he says, "you are called to a case, where a young man of scrofulous diathesis gets a bad bronchitis or pneumonia, exacerbates it by neglect, and is threatened with hectic, what is the best plan you can pursue? My impression is that you should treat it as you would treat acute scrofulous inflammation of the knee or hip-joint; in other words, that you should mercurialize your patient rapidly, and at once; do it suddenly and decidedly, but without pushing the mercury too far, and you will often arrest all the symptoms of the disease, as it were by a charm. . . . I have employed this mercurial plan of treatment in numerous cases of incipient phthisis, and I still continue to use it in this class of cases with the greatest success."

Graves says that he was led to the adoption of this plan by the success which has attended Dr. O'Beirne's practice in acute scrofulous inflammation of the joints. I mention this, owing to a curious coincidence. Years ago, before possessing Graves's remarkable work, from reading Scott‡ "On the

* Virginia Medical Monthly, September, 1876, p. 402.

† Clinical Lectures on the Practice of Medicine. Dublin, 1864, p. 526.

‡ Scott, John. Treatment of Diseases of the Joints. London, 1857, p. 28.

Joints," I was led, needing a revulsive, to the use, instead of leeches and cupping, of a soft cerate, there made mention of, composed of two parts of ceratum saponis and one part of unguentum hydrargyri fortius cum camphora, over the inflamed surface. I find this a powerful means of exciting the superficial vessels, and thus relieving the congestion of the internal organs.

In inflammatory phthisis usually the appetite remains good for a comparatively long time, there are little or no night-sweats, the circulation is normal, and the hectic fever only appears towards the close. Impoverished blood and emaciation are not marked in the early periods of the disease, and hemoptysis is rare. But as the disease progresses, and the last stages are reached, the morbid symptoms which enabled us to recognize this form of phthisis disappear.

NEW YORK CITY.

(To be continued.)

EXTRACTION OF FIFTY LENSES THROUGH A STRAIGHT INCISION OF THE CORNEA.

BY J. L. THOMPSON, M. D.

At this date, after cataract extractions have been reported by the hundred, and so many new methods and modifications of old ones have been proposed, many will feel inclined to pass this brief article by after simply glancing at the heading.

Many may suppose that fifty is too small a number of cases to base the results of any one method upon; but the opinion of the writer is, that it is sufficiently large to warrant one in bringing said method before the notice of the profession; and more especially is this the case when an equal or greater success than by any other means follows the same. When one takes into consideration the rapid multiplication of oculists throughout the world, and especially in this country, he must soon see that even this number in any one's practice will take

months and often several years to reach. It is true an exceptional case occurs, now and then, where an oculist finds an unusual number of cataract patients, but he soon works the material off, and then finds that patients so affected bear but a small per cent. to his other eye cases.

Another reason for their sparsity in any one's practice is the increased facility for the study of the eye. The time was, and not many years ago either, when the students of medicine and surgery rarely witnessed operations upon the eye in our colleges and hospitals; but now, no matter how small the college or where located, but few students leave them without having had frequent opportunities for witnessing operations for cataract, and the result is that in nearly every county-seat we find some young man who is willing to operate for cataract; and, if you will pardon the digression, he often unfortunately does so upon his fellow-creatures even before experimenting upon the inferior animals, not taking into consideration the difference between witnessing an operation and the acquiring that educated touch and easy manipulation of instruments, in and about the eye, necessary to its proper performance. He will also reason in this wise to the applicant: You are already blind, and have nothing to lose if the operation is not successful; and I will only charge you one-half the price that Dr. So-and-so asks of you. Such reasoning is often successful, and results in the "punching" of many eyes, and at the same time it keeps patients from those who are better prepared to treat them successfully.

For a long time "Von Graefe's modified linear" was the operation strictly adhered to by myself; with it I was quite successful, but not to the extent that fortune has kindly favored me in the following method, which I was almost forced to adopt by accident as follows: While operating on a small and deeply-set hypermetropic eye, no sooner had the knife entered the anterior chamber than the aqueous humor running beneath the conjunctiva pressed it out, so as to entirely obscure the upper margin of the cornea; the fixation-forceps were removed, and with my finger gently pressing upon the

point of counter-puncture, the knife was prevented from running far beneath the conjunctiva: but, notwithstanding every effort, I failed to remove the apparent chemosis, and it was found necessary to complete the corneal section by immediately turning the knife upon its axis, and cutting directly forward and outward. The iris was then excised, the capsule lacerated, and the lens removed without further difficulty. As this patient did remarkably well, I resolved to make a straight corneal incision in the next case, and since then all of my hard cataracts have been operated on by this method.

The accompanying illustration will readily explain the position of the incision:

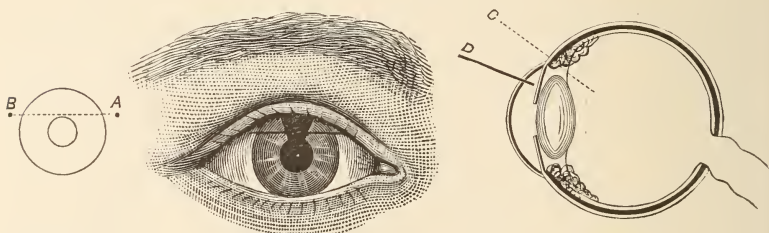


FIG. 1.

FIG. 2.

FIG. 3.

The patient is placed upon a table, as I prefer to stand rather than to lean over a bed or lounge, as one has much better control over both his patient and himself. The operation is made without the aid of an anæsthetic. The lids are separated and held by a spring speculum, and the eye-ball steadied with the fixation-forceps. The point of a knife, measuring one inch and three-tenths in length of blade, and one-twentieth of an inch in breadth, is entered at *A*, figure 1, one-fifteenth of an inch external to the apparent corneal margin, and one-ninth of an inch below its summit. The knife is, of course, first pointed toward the center of the globe, until the aqueous chamber is entered, when it is passed transversely across to point *B*, where the counter-puncture is made; (one need say to those who have never operated for cataract that, in first cases, one is sure to let the knife slide further under the conjunctiva than is desirable in making the counter-punc-

ture). It is then turned upon its axis while drawing it back, so that the blade looks almost directly forward, when, by a few movements backward and forward—usually three—a straight incision is made through the cornea, one-tenth of an inch below its summit, as seen in figure 2.

The iris is then drawn out by the operator, and cut off by an assistant, according to the method of Von Graefe. Or if the section is made below, one needs no assistant; he can remove the fixation-forceps, seize the iris with the forceps in one hand, and excise it with the scissors in the other, as I did in ten out of these fifty cases. The capsule is then lacerated by a sweep of the cystotome around the pupillary margin of the iris as well as the coloboma, and the lens is removed with the greatest of care, by making slight stroking pressure upon the cornea from below upwards with the vulcanite spoon.

The patient is suffered to rest for a few minutes with a gentle compress held over his eyes. He is then requested to count one's fingers, after which a slightly oiled piece of old muslin is placed over each eye, then a little soft cotton, and over all a flannel bandage, with tape strings at its extremities, is lightly tied. The patient is then placed in bed and requested to remain there for twenty-four hours, and is then suffered to sit in an arm-chair or to be led around the room, as he chooses. The dressings are removed, the eyes cleansed, and the cotton renewed twice a day for six days, and one drop of a solution of atropia sulph. is applied until the pupil is seen to be dilated, when it is discontinued. A shade is substituted for the bandage on the sixth day usually, but when there is any tendency to entropium of the lower lid, it is sometimes removed on the third or fourth day. Where elderly persons complain of much pain in the back from lying down, they are suffered to sit up in two or three hours after the operation.

On the fourteenth day, vision is tested, glasses prescribed, (but orders are given that they are not to be used until the eyes feel strong,) and the patient permitted to return home.

In twenty of these fifty cases a double operation was made,

or, in other words, both lenses were removed from the eyes of ten patients at the same time; and the remarkable fact in connection with these is, that the best results followed in every one of them, indeed the greatest acuteness of vision here obtained. One of them is now over ninety-three years, and he can "see to read as well as ever."

The age of the patients ranged from forty-five to ninety; all but nine were over sixty. The cataracts were all hard; forty were nuclear and ten of the cortical variety, but still hard. The length of time which had elapsed since maturity until the day on which they were operated, varied from three months to twenty-three years; and it appeared to have nothing whatever to do with the success of the operation, for the visual acuteness was just as good in the case of longest standing as in that of the shortest duration.

The accidents, or rather complications in these cases, were as follows: Hemorrhage into the anterior chamber, which was not removed when the eyes were bandaged, occurred eleven times; but it proved to be of so little importance that I now cease to regard it with any degree of alarm, especially when I remember that it has occurred in at least one hundred of my iridectomy cases, without causing any mischief whatever. Indeed, it is my opinion that one should not take too much pains to stroke it out of the chamber, for by so doing he may cause more irritation than does the blood by remaining.

Escape of vitreous happened four times. In two it was so small as to be scarcely worth mentioning; in one it amounted to at least one-third. It happened in a patient who had suffered fearfully in one eye for a long time subsequent to an unsuccessful removal of the lens of the other eye some years before. No sooner was the incision made in the cornea than the vitreous commenced welling up and pouring out as from a fountain; the lens sank down, and it was with the utmost difficulty that it was fished up with a wire-spoon and taken out. An iritis followed, which closed the pupil; but, in spite of this, an iridectomy was made three months subsequently, and he was, and still is, able to read ordinary newspaper print.

In the fourth case, it occurred in a very corpulent lady, with very prominent eyes, who informed me that many of her relatives had been operated on, but never successfully. She lost but a few drops during the operation. The lens was removed and the eyes had been bandaged about one hour, when a violent paroxysm of vomiting came on, which caused a large escape of vitreous and the rupture of a vessel of the fundus. This was kept up for two days in spite of every effort to stop it. After the operation, this lady informed me that she was subject to such sick paroxysms, but that as she had just recovered from one before she came to be operated on, she supposed that another would not happen so soon. The eye was completely lost.

The only other eye lost was that of a man aged forty-nine. The operation was very smooth; he could count fingers after the operation, the pupil dilated nicely, and on the tenth day he could see moderate-sized print. He did well until the twelfth day, when, living in a miasmatic region, he had a chill, and then a high grade of fever, which started a capsulitis, then a cyclitis, and finally an irido-choroiditis, which closed the pupil and ruined the eye.

These were the only two failures in the fifty cases; all of the others were able to read ordinary newspaper print when they returned home, which they usually did on the fourteenth day; several, however, went home sooner, and a few remained longer than the time above mentioned. A majority of them could not only read ordinary type but Yager No. 1, which is the finest print that I have seen; and yet notwithstanding this remarkably acute vision, it never equaled $\frac{20}{xx}$ either on the fourteenth day or at any subsequent examination. Twenty-thirtieths is the highest I have ever found where a coloboma of the iris exists. It is true one often finds that $S = \frac{1}{1}$, or $\frac{5}{v}$, or even $\frac{10}{x}$, but this is vastly different from $\frac{20}{xx}$. Two of these patients never had learned to read, but from the ease with which they saw small objects, such as a watch-face, the eye of a needle, etc., I inferred that it equaled at least ordinary reading type.

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Number.	Sex.	Age.	Operation.	REMARKS.	Duration of Treatment.	Results.
1	Male.....	63	Very deeply sunken eye, aqueous ran beneath conjunctiva, and so complicated operation as to cause a completion of the section lower down.....	14 days ..	S = 20-LXX.
1	Male.....	57	Normal ..	.....	14 days ..	S = 20-L.
1	Male.....	50	.....	Hemorrhage in anterior chamber	14 days ..	S = 20-L.
2	Female ..	57	Normal ..	Both lenses removed at once.....	13 days ..	S = 20-XXX.
2	Male.....	90	Normal ..	Both lenses removed at once; had to remain one week longer than usual owing to attack of cholera morbus ...	21 days ..	S = 20-XL.
1	Male.....	56	Normal ..	Hemorrhage in anterior chamber.....	14 days ..	S = 20-LXX.
1	Male.....	64	.....	Loss of vitreous, iritis, closed pupil, performed iridectomy three months afterwards	28 days ..	S = 20-LXX.
1	Male.....	67	Normal ..	.....	14 days ..	S = 20-L.
1	Male.....	83	Normal ..	Several fibers of capsule left.....	14 days ..	S = 20-LXX.
1	Male.....	57	Normal ..	.....	13 days ..	S = 20-XL.
1	Male.....	72	Normal ..	Went to his residence sixty miles distant to operate; made section downwards .....	.....	S = 20-XL.
1	Male.....	65	Normal ..	.....	14 days ..	S = 20-L.
1	Male.....	50	Normal ..	Several fibers of capsule left.....	14 days ..	S = 20-LXX.
1	Male.....	74	Normal ..	Became restless, and would go home..	9 days ..	S = 20-XL.
1	Male.....	56	.....	Blood left in anterior chamber when eyes were bandaged	14 days ..	S = 20-L.
1	Male.....	63	Normal ..	.....	14 days ..	S = 20-L.
1	Male.....	57	Normal ..	.....	14 days ..	S = 20-L.
2	Male.....	56	Normal ..	Went to Mace, Ind., and operated on both eyes; section of cornea downwards .....	.....	S = 20-XXX.
2	Female ..	74	Normal ..	Operated on both eyes by lower corneal section; went to her residence, and left her in hands of a physician to change dressings.....	.....	S = ordin'y print. S = 20-XL.
1	Male.....	62	.....	Hemorrhage in anterior chamber	14 days ..	S = 20-XL.
1	Male.....	70	.....	Escape of a few drops of vitreous	13 days ..	S = 20-LXX.
1	Female ..	50	Normal ..	Several fibers of capsule in pupil.....	14 days ..	S = 20-100.
1	Female ..	51	Normal ..	.....	14 days ..	S = 20-L.
1	Male.....	49	Normal ..	This patient did very well until the twelfth day, when he had intermittent fever, which started a capsulitis, then cyclitis, and he lost the eye.....	29 days ..	S = 0.
1	Male.....	52	Normal ..	.....	9 days ..	S = 20-XL.
1	Male.....	63	.....	Hemorrhage into anterior chamber.....	14 days ..	S = 20-LXX
2	Female ..	68	Normal ..	Both lenses removed at once.....	14 days ..	S = 20-LX.

Number.	Sex,	Age.	Opera- tion.	REMARKS.	Duration of Treat- ment.	Results,
2	Female ..	61	.....	Both lenses at once; blood left in both anterior chambers	14 days ..	S = 20-LXX.
2	Male.....	75	Normal ..	Both lenses r moved at once.....	21 days ..	S = 20-L.
1	Male.....	58	.....	Blood in anterior chamber; patient went home on eighth day; tested vision on forty-second day	8 days ..	S = 20-XL.
1	Male.....	75	Normal ..	Section downwards	13 days ..	S = 20-XXX.
2	Female ..	76	.....	Both operated on at once; hemorrhage into each anterior chamber.....	21 days ..	S = 20-L.
1	Male.....	57	.....	A few drops of vitreous lost.....	14 days ..	S = 20-XL.
1	Female ..	60	.....	A few drops of vitreous lost, hardly worth mentioning, but a paroxysm of vomiting coming up 1½ hours subse- quently, the eye was completely lost from hemorrhage.....	14 days ..	S = 0.
1	Male.....	60	Normal ..	.....	14 days ..	S = 20-L.
2	Female ..	58	Normal ..	Both operated on at once	13 days ..	S = 20-L.
2	Female ..	45	Normal ..	Both lenses removed at once	14 days ..	S = 20-XXX.
1	Female ..	67	.....	Blood in anterior chamber	18 days ..	S = 20-XXX.
1	Male.....	48	Normal ..	.....	14 days ..	S = 20-XL.
1	Male.....	53	Normal ..	Went to Franklin, Ind., to operate	14 days ..	S = 20-L.

The physicians who assisted me in, or witnessed these operations, and who in most instances saw the acuity of vision tested subsequently, are as follows: Dr. F. S. Newcomer, of Indianapolis, thirty-four cases, twenty single ones and fourteen double ones, or, in other words, where the eyes of seven patients were operated on at one sitting; Dr. L. D. Waterman, of Indianapolis, one case where both lenses were extracted at once; Dr. J. M. Dunlap, of Indianapolis, three single ones; Dr. McDonald, Indianapolis, one single and two where both lenses were extracted at one sitting; Dr. Eastman, Indianapolis, three—one single and one double; Drs. Scull, Parsons and Washburn, Shelby county, Ind., two operations at the same time on one patient; Dr. Eddingfield, of Mace, Ind., two operations at the same time on one patient; Drs. Woodburn and Gale, Indianapolis, one; Drs. Armstrong, Cole and Scott, of Kokomo, Ind., one; Dr. Payne, Franklin, Ind., one. Many other physicians have also witnessed the operations above mentioned, but their names I can not recall at present.

It will readily be seen from the engraving above (figure 2), that the incision is rather lower down than that of Dr. Wecker, and yet it is not sufficiently low to interfere with the acuity of vision; but, on the contrary, it is conducive to the same on account of the slight opacity across the upper portion of the coloboma, which practically affords a more central pupil than does the peripheral section, with a clear cornea to its very margin.

A glance at figure 3 will show that the incision is much farther removed from the ciliary body than is the ordinary incision which is usually made. The dotted line C represents the latter, while the dark line D describes the one spoken of in this paper.

The manifest claims of this operation, one would think, are as follows:—First, its great ease of performance; second, less danger of loss of vitreous than in those more peripherally situated; third, less danger of cyclitis, or other inflammations of the uveal tract; fourth, less astigmatism from corneal displacement.

Since writing the above, four cases have been operated on after the same method. Two of them were perfect successes; one has not yet had his vision tested; and one, the most smooth operation ever made, and in which vision was very acute, afterwards died on the fourth day from a malignant typho-malarial fever.

INDIANAPOLIS.

ATTEMPTED ENUCLEATION WITH EXCESSIVE HEMORRHAGE.

BY W. CHEATHAM, M. D.

*Clinical Lecturer on Diseases of the Eye, Ear and Throat, Summer School of
University of Louisville; Eye, Ear and Throat Surgeon to Kentucky
Infirmary for Women and Children, Louisville, Ky.*

Mrs. C., aged seventy-five years, very feeble, consulted me in reference to her right eye, in which she had glaucoma with

cataract. The left eye she had lost four years ago from the same disease, the cornea ulcerating and rupturing, evacuating the contents of the globe, and leading to atrophía bulbi. I advised an iridectomy on the right eye, with enucleation of the stump of the left.

November 28. Placed patient under the influence of chloroform, and performed the iridectomy with some little trouble on account of the shallowness of the anterior chamber, the knife becoming engaged in the iris. I then proceeded to enucleate the stump of the left, for fear it might excite sympathetic inflammation in the fellow eye, hoping it would increase the old lady's chances for vision. It is true she had cataract with glaucoma in the right eye; yet, with an almost mature cataract, she could count fingers at the distance of one foot, giving, I think, considerable hopes for vision in that eye after extracting the cataract.

I had about cleared all adhesions on the nasal, upper and lower portions of the stump, and was proceeding to do the same on the temporal side, when I was surprised by a sudden gush of blood, looking to me, at the time, large enough to have come from a severed aorta. I undertook to continue the operation, as it would have taken a few seconds only to have finished. The hemorrhage was so profuse that I was compelled to desist.

Recognizing the fact of the difficulty of the use of a ligature, and also as I thought the hopelessness of pressure when such a large vessel was severed, as well as its dangers, as the hemorrhage might take a backward course, or the pressure cause an extensive sloughing of the parts; taking into consideration also the feebleness and age of the patient, my feelings were far from comfortable. I decided, in less time than it takes to write one of these words, to use compression on the common carotid of that side, and also to soak cotton in Monsel's solution with which to pack the orbit, and make as firm pressure as possible on the plug. Pressure was made with both hands, the patient being still kept under the influence of the anæsthetic. The pressure was continued on the

plug for half an hour; the instant it was relieved the orbit began to fill, and the blood to ooze from around the cotton. I then decided to remove the plug and repack the orbit, which was done, and pressure continued for an hour longer with the hands, and afterwards by means of a bandage and wet muslin folded into a pad. The bandage was not removed for twenty-four hours; the plug was left to slough out, as the least attempt at removal was followed by slight hemorrhage.

November 30. Eyelids beginning to slough, with considerable pain; heart of the plug removed; tonics, hot water dressing and rest advised.

December 1. Slough extending almost completely around the orbit, deepest on nasal side, and below burrowing under the cheek toward the buccal cavity.

December 10. Slough trimmed out, leaving a large fissure above, below and at the nasal side. Adhesive straps were so placed, by the advice of Dr. W. H. Long, who had assisted me from the first, as to approach the sides of the fissure, favor adhesion, and to give support to the lower portions, thereby stopping the burrowing there. It was followed by a rapid and early improvement, the edges beginning to heal together in a short time.

December 18. Patient returned home, with instructions to continue the straps and tonics.

January 1. Received word that the fissures have closed rapidly; she has had no pain, and is in high spirits. The pain in the right eye was entirely relieved by the operation.

The question arises, should the enucleation have been continued to completion? Had the subject been young and full-blooded, I should say, yes; owing to her age and feeble condition, I think it would have been exceedingly dangerous, in fact certain death to the patient to have attempted it.

LOUISVILLE, KY.

Reviews.

The Signs and Concomitant Derangements of Pregnancy—their Pathology and Treatment; to which is added a chapter on Delivery, the Selection of a Nurse, and the Management of the Lying-In Chamber. By WILLIAM MORGAN, M. D., Member of the Royal College of Surgeons, England; Member of the British Homœopathic Society; Physician to the Brighton Homœopathic Dispensary, formerly Physician to the North London Homœopathic Dispensary; one of the Medical Officers to the London Homœopathic Hospital, etc., etc. London, New York and Philadelphia: Boericke and Tafel. 1877.

There has been recently carried on, during several weeks, in one of the leading metropolitan dailies—the New York Times—quite an animated discussion of homœopathy. It was begun and principally conducted, on the part of regular medicine, by a gentleman of great ability and reputation, especially as a lecturer, who has filled several chairs in western schools, and now occupies a high position in an eastern college. The replies were from representative men belonging to the other school, of New York and Philadelphia. To impartial readers, we know by actual observation, there could be no question as to which side got the best of the discussion. The homœopaths exhibited plenty of bad temper, any amount of *pseudo* science, and a surprising discord as to what homœopathy really is; some maintaining that it is what it always was, others that it is no longer *Hahnemannism*—the diversity being so great that outsiders could only conclude that homœopathy is pretty much of an every one-for-himself affair, both in theory and practice.

The controversy brought to our notice the little book whose title is above given. We do not notice it here for its doctrines or for its science!—Heaven save the mark! It is the merest sham of an *ad captandum* business-hunting production

ever conceived; one of which any person should be ashamed who could place after his name the titles of the author—one over which his homœopathic brethren must blush, if they do not fling it aside in absolute disgust. But we notice the work in order to call attention to and expose one prominent feature of homœopathy, not touched in the discussion alluded to, which is abundantly illustrated in its pages. We allude to the constant and persistent perversion of truth—*falsehood* is the word—of homœopathic practitioners in regard to the regular school. Every practitioner knows where a patient has been who, upon entering his office, begins to talk of “*strong medicines*,” and the time it will take to get the strong medicines “out of his system!” Every practitioner, as he goes his daily rounds, learns on every hand how he and scientific medicine are misrepresented and slandered. Not often is it done in print so openly as by the author of this book; and since he is a representative man, an author and professor in their school, we will give a few extracts that our readers may see what sort of adversaries they have to deal with.

We pass over the introduction, in which the reader is informed that for all the troubles and trials of pregnancy, the “allopathist,” as he calls him, does nothing, because he dare not; “the fear of doing harm suppresses the promptings of interest;” “the sufferer may endure agonies, but the doctor calls to see her and leaves her unrelieved” (p. 5). It would not do to notice this culpable idleness of the regulars, because we should have to make the statement square with what he says further on, and that we can not do! So we slip quietly on to the subject of “Nausea and vomiting—morning sickness.” Here we are told:

“For these symptoms bleeding is a favorite practice with the allopathists, notwithstanding that this operation is one of the best known means of producing abortion [?], leeches, purgatives, counter-irritants, enemata of assafoedita and turpentine, salines, narcotics, and almost every known process or drug recognized in medicine, is sometimes adopted by the advocates of the general or so-called orthodox doctrine” (pp. 11–12).

There, now, you have it! Commend us to a man who, being well posted as to the present position of a science, who knows all its shortcomings, is bold enough to start out as a reformer of it! But how slyly he runs in that little conscience-saving word "sometimes."

Again, on "Pain in the breasts" (pp. 41-42), after describing the enlargement, and the pricking and shooting pains, he says:—"For these symptoms, general practitioners resort to severe, and altogether unnecessary, measures. Fomentations, narcotics, leeches, *venesection and tartar emetic*"—(we can not withhold the italics!)"—"are among the remedies proposed for such a state in a delicate female."

Again, we are told (p. 89), that for abortion and premature labor, "It is customary for medical men of the allopathic ranks to *bleed from the arm*" (!) And for hemorrhoids, we are also told that "the allopathic doctrine recommends free *purgatives, leeching, bleeding*," (p. 69).

These quotations are enough. We would not insult the author by the suggestion that he does not know any better than this; we, therefore, leave him to sit down on the other horn of the dilemma, and make himself as comfortable as he can. Meanwhile, whenever any of our readers wish to prove the proposition that homœopathy sustains itself by deliberate and persistent falsification and misrepresentation of regular medicine, they can find abundant proofs in the pages of this little book, with a big title and a stupendous dedication to the "Mothers of England."

J. C. R.

Hospitals: their History, Organization and Construction. Boylston Prize Essay of Harvard University for 1876. By W. GILL WYLIE, M. D. New York: D. Appleton and Co. 8vo., pp. 240. 1877.

The first chapter is taken up with a sketch of the origin and history of hospitals, and the author calls particular attention to the fact that hospitals existed in India and other countries before the christian era, and strongly emphasizes that

they do not owe their origin to the influence of christianity. It is pleasant to be reminded that even in remote ages, and in barbarous lands, human nature was not destitute of that genuine sympathy with the sufferings of others which finds expression in active efforts for their relief. It is, indeed, to an inherent desire to relieve suffering in others, and to an instinct which causes us to fly from pain, that medical art and science owe their birth. But no one at all acquainted with the history of hospitals, or even after reading Dr. Wylie's book, can forget that before the christian era hospitals were exceedingly few, and that it was christianity that gave the strong impulse to human beneficence, which caused a wider and more general interest for the sick and poor; and that under the benign influence of christian spirit and faith that hospitals grew up everywhere, became numerous and flourished.

The second chapter on the "Relation of Hospitals to Pauperism," is quite good, and presents in short space some important truths that are often overlooked. The third chapter, on Hospital Organization and Management, furnishes nothing new. The fourth chapter, on Construction of a Civil Hospital, and the fifth chapter, on Warming and Ventilation, are, perhaps, the most faulty in the book, setting forth dogmatically a number of inaccuracies and unproven theories.

Chapter VIII, on Arrangement of Buildings, is one of the best in the book, and contains safe and sound rules which often enough are strangely ignored. The author insists that the "autopsy and pathological building" should be separated from the rest of the grounds by a high wall and by intervening trees and shrubs. In some places these departments have no separate building, but are consigned to rooms in the main building of the institution, and in close propinquity to the wards. He urges that the doctors in the hospital, and even those who visit the wards, should not be allowed to make, or even be present at, a post mortem examination of an infectious case. This wholesome precaution is too often neglected. The "out-door dispensary" Dr. Wylie justly regards as an essential part of a well organized hospital, and believes it should

have a separate building and entrance, both for the sake of cleanliness and order, and also to prevent the entrance of infectious and contagious diseases.

In chapter IX, the "Relations of the Medical School and the Training School for Nurses," are discussed. The author enumerates the qualifications he believes necessary to medical students before beginning the college course, and then lays down a plan of studies for the whole under-graduate period. These matters have certainly no direct connection with the history, organization or construction of hospitals, and their consideration in a work whose ostensible object is that of the volume before us is a work of supererogation.

The tenth chapter relates to the improvement of hospitals now in use, lying-in hospitals, hospitals for convalescents, army hospitals, insane asylums, and is the last in the volume excepting the appendix, containing some reviews by the author.

The book contains much that is valuable, and the style is pleasant; to the medical man it supplies nothing new, and to the unprofessional reader it is in many respects misleading. On perusing it one is forcibly reminded of Lessing's celebrated reply, when he was asked to give an opinion of some literary work. "It contains," said he, "some things which are new, and some things which are true; but the things that are true are not new, and the things that are new are not true." The paper and typography are good. J. A. O.

Landmarks, Medical and Surgical. By LUTHER HOLDEN, F. R. C. S.,
Vice President and Member of the Court of Examiners of the Royal College of Surgeons of England; Surgeon to St. Bartholomew's and the Foundling Hospitals. From the second English edition. Philadelphia: Henry C. Lea. 1878. 8vo., pp. 128.

We first saw these "Landmarks" some years back in St. Bartholomew's Hospital Reports, where they appeared as a contribution by Mr. Holden. They attracted our attention at

the time, and often since we have made free use of them in our lectures on clinical surgery, where we found them great helps to the student. The object of the author has been to collect, in a compact form, the leading landmarks which help practical surgeons in their daily work, and to forward students in getting "the habit of making the eye and the hand work together, and to educate the 'touch' upon the normal body." By "medical and surgical landmarks," we understand certain "surface-marks on the living body, such as lines, eminences, depressions, which are guides to, or indications of, deeper-seated parts."

Mr. Holden's efforts to create among the students of St. Bartholomew's—his first audience—the habit of examining the living body with "anatomical eyes" and "surgical fingers," are certainly in the right direction; for no one can be counted a really good surgeon or physician, who does not possess what has long been aptly called the *tactus eruditus*. The usefulness of our author's labors will be much enhanced now that his original paper has been, with some valuable additions, put in a small and very handsome volume. To those of our readers whose memories have grown rusty, in the matters of which it treats, the work of our author will prove a real comfort. To students in medicine or surgery it will be a real help.

On the Uses of Wines in Health and Disease. By FRANCIS E. ANSTIE, M. D., F. R. C. P., etc. Reprinted from the Practitioner. London: Mac-Millan and Co. 1877. Philadelphia: Lindsay and Blakiston. Louisville: John P. Morton and Co.

Part I, on the place of wines in the diet of ordinary life; Part II, on the uses of wines in disease: section 1, wines in acute disease; section 2, wines in chronic disease.

The author is an advocate for the moderate use of wines in health, and places great reliance on them in the treatment of disease. The lamented Anstie never wrote anything that was not the best of its kind.

A Guide to Therapeutics and Materia Medica. By ROBERT FARQUHARSON, M. D., etc. Enlarged and adapted to the United States Pharmacopœia, by FRANK WOODBURY, M. D. Philadelphia: Henry C. Lea. Louisville: John P. Morton & Co. 1877.

This is a valuable addition to the literature of therapeutics. In a commendably small compass the author presents the accepted doctrines of the day concerning the therapeutical and physiological action of medicine. "By a convenient arrangement, the corresponding effects in health and disease of each article are presented in parallel columns, not only rendering reference easier, but also impressing the facts more strongly on the mind of the reader."

The author gives some useful general rules for prescribing, and in speaking of prescribing for children, he points out the importance of knowing the peculiarities of child-life concerning the action of medicine. He cites, for instance, some active remedies which are beneficially given to children in proportionately very large doses. He has given to a child of ten, suffering from incontinence of urine, two fluid drachms of belladonna, with good effect; and he commonly begins with twenty minims in a child of two or three years. He has prescribed ten minims to an infant of six months with remarkable benefit. Fowler's solution being singularly well borne, he gives five or six minims to children of five or six years, and pushes it even to ten minims if necessary. Prussic acid, diluted, one to three minims may be given at the same age. Strychnia is well borne; and he has given one fluid drachm of tincture of iron thrice daily to a girl of six years with excellent results. Dr. Farquharson says also that children require larger purgative doses proportionally than adults, and the same is asserted of ipecacuanha as an emetic. He advocates the use of English instead of Latin in writing prescriptions.

The American editor considers the method of graduating doses for children proposed by Prof. Cowling, of the University of Louisville, probably the most practical yet suggested. It is as follows: The proportional dose, for any age under adult life, is represented by the number of the following birth-

day divided by twenty-four. Thus, for one year, $\frac{2}{24} = \frac{1}{12}$; for five years, $\frac{6}{24} = \frac{1}{4}$, etc.

On the Surgical Treatment of Perityphlitic Abscess. By J. H. POOLEY, M. D., Columbus, Ohio. 15 pp.

In this pamphlet are given the history and treatment of four cases of perityphlitic abscess. In the first case an incision three inches in length, an inch and a half above Poupart's ligament, was made. The moment the fascia transversalis was incised, there was a gush of dirty offensive matter, nearly a pint. A tent of lint was introduced, a poultice applied, but no morphia given, as the patient was mostly relieved of pain. The next day, while syringing out the abscess, there was discharged the whole appendix vermiformis, in a sloughy, pulpy condition. There was a communication with the intestine, but the patient entirely recovered without a fecal fistula resulting.

In the second case no fluctuation could be detected, but on incision "a large quantity of stinking matter was evacuated." Stimulants were necessary in this case on account of the prostration, but the patient fully recovered.

The other two cases reported were in the practice of Dr. S. D. Turney. The abscesses were opened in front of the ant. sup. spinous process of the ilium, and considerable pus evacuated from each.

One symptom pointing to abscess where fluctuation can not be detected, Dr. Pooley says, is local œdema of the integument over the swelling; it is almost an infallible sign of deep suppuration.

State Regulation of Vice—Regulation Efforts in America—Geneva Congress. By AARON M. POWELL. New York: Wood and Holbrook, Publishers, 13 and 15 Laight Street. 1878.

The author opposes the licensing of prostitution on moral grounds, and contends that it is a lamentable failure as a method of diminishing disease or decreasing prostitution, both in Europe and America.

Clinic of the Month.

NOTE ON THE USE OF THE CALOMEL VAPOR BATH.—Mr. Henry Lee, F. R. C. S., Surgeon to St. George's Hospital, London, in the *Lancet* of February 9th, says:

In the *American Practitioner* for September, 1877, Dr. D. W. Yandell has given, perhaps, the fairest and most impartial account of the different modes of using mercurial fumigation that has yet been published. It is twenty-three years, Dr. Yandell remarks, since he commenced the use of the mercurial vapor bath, and he has used it ever since. Other forms of mercurial treatment are also employed, but, where circumstances permit of it, he prefers that to any other.

Dr. Yandell commenced his experiments with what he conceived to be Mr. Langston Parker's apparatus, with the gray oxide of mercury, but found the degree of heat necessary to vaporize the powder a very serious objection. The bisulphuret was next tried, without benefit. The irritating fumes of the sulphur and the heat acted injuriously. It was then found that the so-called cinnabar that he used contained ninety per cent. of lead to ten per cent. of mercury. Unadulterated cinnabar was now used, mixed with the gray oxide, and the results obtained were more satisfactory than with either alone. Still the extreme heat necessary to vaporize the latter and the suffocating fumes of the former told heavily against their use. At length calomel was tried, and "the mere mechanical troubles with the fumigations were now virtually at an end."

Dr. Yandell found, however, that his patients did not improve so rapidly as mine did in London, and asks, with much point, what the explanation can be? We both used the same apparatus, and the same quantity of calomel, and why should the same treatment cure quickly in London, and not cure

quickly in Louisville? The solution of this question is not difficult, and for the benefit of others I wish to answer it publicly rather than in private communication.

The great majority of those at first treated were hospital cases, and, as Dr. Yandell says, the London Lancet of that day abounded in reports of such cases. He gives me the credit, which I also claim, of having reported the cases faithfully. The patients, often several in succession, were placed in a box in which the ten or fifteen grains of calomel were volatilized. The room in which the box was contained was small, and, looking back upon the rapid and almost uniform results obtained, I have no doubt whatever that the patients got the benefit of some of the calomel that was left in the box, and perhaps in the room, in addition to the ten or fifteen grains that was devoted to their individual use. In private practice I generally directed patients to use the same cloak night after night, and to sleep in it,* and thus the calomel vaporized one night was again to some extent utilized the next.

Dr. Yandell found that in order to produce the desired effect he had often to use one scruple, half a drachm, or a drachm of calomel for each bath. Where patients like to have a clean cloak for their baths, and wash the calomel off by means of baths, I have, as he suggests, found the same thing, so that substantially his experience and my own coincide.† It may be well here to mention that I now use calomel that has been previously resublimed two or three times. Ordinary calomel is less affected by heat or moisture than any other preparation of mercury, but still it does contain a certain amount of hydrochloric acid, the presence of which may be indicated by a piece of moist litmus-paper held in the fumes as they arise. This free hydrochloric acid is driven off in a great measure by sublimation, and the pure calomel thus prepared is less irritating than the ordinary calomel of commerce. It should also

* The cloak usually employed is called moleskin, and makes a very comfortable night-dress.

† Half a drachm of calomel is the quantity which practically I now recommend to be used for each bath.

be observed that the water I originally used was principally for the purpose of preventing irritation from any fumes that might be generated during the action of the baths, and I find that an ounce on each occasion is quite sufficient. If more water be employed, more heat is necessarily required in order to boil it. The vapor of the water is in part deposited on the patient's skin; this must in some way be removed before he is comfortable, and some of the calomel is necessarily removed with it. Dr. Yandell uses a pint of water in the apparatus which he has depicted, and the patient has thus a combined vapor and calomel bath. This, no doubt, may be very useful where such a combination is intended, but the effect is often very different from that produced by the calomel bath alone; a much greater amount of perspiration is induced, and this the patient, when the bath is repeated night after night, can not bear. The perspiration also tends to remove the calomel from the skin.

Dr. L. P. Yandell, Jr., is of opinion that brisk friction after the sweat, made with the coarsest towel, and until the skin is all of a glow, actually promotes the action of mercury, and conduces to its more rapid absorption. This no doubt may be the case, but it involves a different principle. The calomel is rubbed into the skin in a similar way as the mercurial ointment was in olden times.

WOUNDS OF THE PALMAR ARCHES.—In the *Edinburgh Medical Journal*, February, 1878, we find the following valuable article on this perplexing and often dangerous injury:

Every surgeon who has had an opportunity of seeing a wound of the palm, involving one of the palmar arches, knows how difficult it is to arrest the hemorrhage. Dr. Alexander Ogston says:—"I have seen plugging of the wound, flexion at the elbow-joint, vertical elevation of the arm, pressure on and deligation of the arteries of the forearm and arm, fail to arrest the bleeding from a wounded deep palmar arch."

The practitioner who meets with such a case for the first time generally supposes that the bleeding from a wound that

presents such a trifling appearance may be restrained by simple measures; and, besides, he feels some natural reluctance to cut into the structures around the wrist. Instead of enlarging the wound and securing the bleeding artery, compresses and a tight bandage are applied; but, as an oozing of blood still continues, recourse is had to styptics, then a needle may be passed deeply into the wound, and, lastly, the tourniquet is put on. As the bleeding usually ceases at times, he is encouraged by a delusive hope that he will yet be able to stop the hemorrhage, and he therefore perseveres with these so-called simple measures until the patient becomes weakened by the loss of blood, and inflammatory swelling appears in the forearm.

White has well described this state of parts. "On the seventh day," he says, "I was called in consultation with Mr. Allan to take off the arm. We found his hand and arm swelled to three times its natural size, from the frequent use of the tourniquet, which had been under a necessity of being moved to different parts of the arm on account of the excoriation it had occasioned. For the last twenty-four hours it had been applied almost without intermission from a dread of his bleeding to death."

Owing to the palmar fascia and the other structures, the wounded artery can seldom be seized until the wound has been dilated.

This is an injury which seems to be far from being uncommon; for, since 1876, no less than four cases have been recorded within the columns of the *British Medical Journal*. In the case reported by Dr. Ogston, the deep palmar arch was punctured; the wound was situated on the radial side of the wrist, and was caused by a knife. Nine days after the injury was received, Dr. Ogston cut down on the metacarpal bone of the index finger (from the back of the hand), separated the attachment of the abductor indicis from it, and exposed the wounded part of the arch; then, lifting it up by a tenaculum, applied a ligature on each side of the puncture. The bleeding was at once arrested, and did not return.

In Dr. Donald's case, it was found necessary, nearly six weeks after the wound, to tie the brachial artery. The ligature was applied on the 25th of February; but on the 4th of March the bleeding returned, and the radial and ulnar arteries were tied. The hemorrhage ceased, and did not recur. On the 30th of March the man was dismissed cured; and, six weeks afterwards, the arm was found useful and natural in size.

In Mr. Barwell's case the wound in the arch was caused by the bursting of a lemonade-bottle. The patient was admitted into Charing Cross Hospital on the 10th of February, 1877, and, although compression was tried, and a needle passed beneath the artery, the hemorrhage frequently recurred, and on the 21st of February the brachial was tied at its lower third. On the 17th of March the patient, a female, left the hospital with the use of her hand.

In the case treated by Mr. Sydney Jones, the wound in the palmar arch was caused by the breaking of a bottle. A small traumatic aneurism formed in the course of the superficial palmar arch. A carbolized catgut ligature was applied to the brachial artery at its lower third. At the end of a few weeks the lad left the hospital with all the wounds healed, and with the "hand perfect."

Considerable diversity of opinion seems to exist amongst surgeons as to where the ligature should be applied; and from these cases it appears that the brachial artery, or an artery representing it, may be tied without arresting the hemorrhage. Bell says, in his treatise on the Nature and Cure of Wounds, that the wound should be cut up freely until the bleeding vessel is exposed. But after the forearm has become inflamed and swelled, many surgeons would hesitate to do so, and prefer deligation of the brachial artery. Bell, however, goes on to say, "And in this particular case, the parts are so massed together, that he (the surgeon) can distinguish no one part from another, unless he prolong his cut either above or below the place in which the blood is extravasated where the arteries are free; in short, as he cuts through two inches of

confused substance on so naked a part as the wrist, *e. g.*, he hardly doubts that he is cutting through the muscles and everything, while in fact he is only cutting through the skin, thickened to this degree by inflammation." When the superficial arch is wounded the bleeding may be said to come from the ulnar, when it is the deep arch from the radial artery.

Both of the vessels may vary in their place of origin; but more especially the radial artery, which may arise very high up in the arm. "In ninety-four cases out of four hundred and eighty-one, or about one in five and one-ninth, there were two arteries instead of one in some part or in the whole arm." (Quain.) These variations will sometimes account for the failure of the ligature when applied in the course of the brachial artery. A consideration of this fact, along with the distance and importance of the brachial artery, would seem to favor the opinion that this ligature should be applied to the wounded arch.

BROMIDE OF POTASSIUM IN THE UNCONTROLLABLE VOMITING OF PREGNANCY.—In the *American Journal of Medical Sciences*, January; 1878, Dr. S. C. Busey gives an account of several cases where the bromide was used successfully in the treatment of the above disorder, when almost all other remedies had failed, and the patients were very nervous, with a feeble circulation threatening dissolution. The relief given usually occurs from six to twenty-four hours after beginning to use the remedy; and the treatment has not failed in any case which has come under the observation of the writer.

Dr. B. describes the manner of administering the bromide as follows: "As a rule, the bromide, in doses varying from thirty grains to one drachm, dissolved in beef-tea, to which brandy and laudanum may or may not be added, should be given (per rectum) every four hours, until the nausea and vomiting have ceased, the stomach will retain some bland food and stimulants if necessary, and then it should be gradually withdrawn by extending the intervals between the enemata."

TREATMENT OF TETANUS.—This is an abstract of six different articles on the subject of tetanus, in the *London Lancet*, February 16, 1878.

The first paper, by Eben Watson, M. D., is written to show the effect of nerve-stretching in acute traumatic tetanus. Two cases are given where the finger and hand were badly crushed. The operation in both cases consisted in cutting down over the upper part of the brachial artery, and exposing the median, ulnar and musculo-spiral nerves, and taking them up with the fingers and thoroughly stretching them. The severity of the convulsions was lessened by this treatment, but both cases resulted fatally, notwithstanding the calabar bean was also used.

The second article, by A. P. Boon, M. R. C. S., is a résumé of five cases of tetanus with four recoveries. The treatment was, first, exclusion of all draughts and keeping the room dark and quiet; second, give nourishment freely and frequently in a liquid form, and also stimulants from the beginning; third, never give purgatives, as purgation irritates the nervous system; fourth, hydrate of chloral, with extract of *cannabis indica*, is to be given in rapidly increasing doses until the frequency and severity of the spasms are controlled.

The third article is by Dr. E. Watson Paul, a narration of one idiopathic case, treated by hypodermic injections of atropia sulph., and by injections (per rectum) of stimulants and nutriment, with ten grains of hydrate of chloral every hour. Patient recovered.

The fourth article is by W. R. G. Samuels, M. D. In this case the tetanus was caused by a splinter of wood, an inch and a quarter in length, imbedded in the muscles of the leg for a week. The treatment consisted in large doses of bromide and chloral, also cutting down through the wound and dividing the musculo-cutaneous nerve, the periphery of which nerve had been irritated by the splinter. The patient lived but a few days.

The fifth article, by Arthur Tuxford, M. D., relates the history of a case of tetanus in a boy, caused by the stings of three wasps. The treatment consisted in opening the bowels

freely first, and then giving beef-tea and brandy, with bromide and chloral. Entire recovery within a month.

The last article is by Archibald Lawson, M. R. C. S. A boy, ten years old, ran against a scythe, cutting his instep badly. Sutures were inserted, and the wound dressed. Nine days after, tetanus was well developed, with a pulse of 144, temperature 103°. In this case no drug was administered except chloral, which was given, eight grains every hour, and occasionally a dose of sixteen grains. Stimulants were not given, and no nourishment except milk.

GELSEMIUM SEMPERVIRENS IN NEURALGIA.—The action of this drug in affections of a neuralgic character has recently been studied by Dr. Emery-Heroguelle, who made it the subject of his inaugural thesis. Taken in a large dose gelsemium produces frontal headache, stunning, visual troubles, diplopia, contraction of the pupil, and dropping of the upper eyelid, and also weakness of the legs. The author reports six cases of intoxication from this drug, taken in mistake. Gelsemium is administered in powder or in pills in the dose of three-fourths of a grain to three grains of the powder of the roots. It may also be given in the form of tincture, made with one hundred parts of alcohol at 60° to five parts of the powdered root. The dose is from forty to eighty drops. A syrup may be also made by adding fifty parts of the tincture to one thousand of simple syrup. M. Emery-Heroguelle reports thirty-one observations in reference to the action of the drug on neuralgia. From an analysis of the results, it appears that gelsemium may be especially looked upon as an anti-neuralgic; that it acts favorably in cases of dental neuralgia of the fifth pair, of the frontal, temporal, supra and infra-orbital nerves, the brachial plexus, the intercostal and ilio-lumbar nerves. Sciatic neuralgia appears to resist rather more than other neuralgias the calming effects of this tincture. The author considers gelsemium a powerful sedative in neuralgia, especially in those varieties which are not accompanied by local fluxion in the affected point. (Medical Examiner, Dec. 27, 1877.)

Notes and Queries.

CONTRADICTIONARY CRITICISM FROM BOSTON AND PHILADELPHIA.—We have always looked upon Boston and Philadelphia as two of the most important medical centers and sources of knowledge in the world, and been inclined to believe that what these cities did not know upon professional subjects was unknowable, or else not worth the knowing. But, alas, our faith has just received a rude shock. We read in the Boston Medical and Surgical Journal, in reference to a monograph recently translated from the German,* that “the translation is very well done;” and then we turn to the Philadelphia Medical Times, and find the same work declared to be “vilely translated.” Such discordant judgments are exceedingly trying to us who do not live quite as near the sunrise as these great authorities. “Down South” and “out West” are expressions sometimes used by some of our eastern medical friends, as if those living outside of the triangle made by New York, Philadelphia and Boston, had neither local habitation nor name. And now for the benefit of these outside barbarians, we hope New York will give the deciding vote as to the merits or demerits of the translation referred to. Such decision failing, we should be tempted to adopt the desire of Charles Lamb, who once wrote a friend as follows: “I’ve often wished I lived in the Golden Age, before doubt, and propositions, and corollaries got into the world.”

* Professor De Morgan, of University College, London, once alleged as to German “seven deadly sins of excess—1. Too many volumes in the language; 2. Too many sentences in a volume; 3. Too many words in a sentence; 4. Too many syllables in a word; 5. Too many letters in a syllable; 6. Too many strokes in a letter; 7. Too much black in a stroke.” Shall we not add to these deadly sins of excess, this deadly sin of defect, its being untranslatable into English, so that competent authorities are directly antagonistic as to the character of a translation?

COMPENSATION OF MEDICAL EXPERTS.*—The Supreme Court of Indiana has rendered the following decision in the case of *Dr. Buchman v. The State*, appealed from the Allen County (Ind.) Criminal Circuit Court:

One Hamilton was on trial charged with the commission of a rape. Dr. Buchman being called as an expert, refused to give his professional opinion without being compensated in an amount greater than the ordinary witness fee. The court being of opinion that the witness was required to answer the questions without compensation other than ordinary witness fees, he was committed as for contempt. From the commitment the witness appealed.

Abstract of opinion.—A physician or surgeon, in respect to facts within his knowledge, stands upon an equality, in reference to compensation, with all other witnesses. But can he be compelled to give a professional opinion without compensation, other than the ordinary witness fees? In England there is some diversity in the decisions in respect to the question whether an attorney or medical man is entitled to higher compensation for attendance, as a witness, than ordinary witnesses. This diversity, however, relates to witnesses required to testify to facts, and not to give professional opinions. In respect to professional opinions, we are not aware of any diversity of decision.

A witness, selected by a party to give his opinion on a subject with which he is peculiarly conversant from his employment in life, is not bound as a matter of public duty to testify; and the party who selects him must pay him for his time before he will be compelled to testify. 1 Car. and Kir., 23; 1 Sprague (U. S.), 276; 13 Abb. Prac. Rep. (N. S.), 207; *Ordronaux Juris. Med.*, § 114; 2 Phil. Ev., 4th Am. ed., 828.

We proceed now to test it by the constitution of the state. Section twenty-one of the bill of rights provides that, "No man's particular services shall be demanded without just compensation." Under this provision of the constitution, this

* We are indebted to Mr. Hiner, Librarian of the Supreme Court, for the abstract of this very important decision.

court held that the court could not demand the professional services of an attorney without compensation. 4 Ind., 525. If the professional services of a lawyer can not be required in a civil or criminal case, without compensation, how can the professional services of a physician be thus required? Is not his medical knowledge his capital stock? Are his professional services more at the mercy of the public than the services of a lawyer? When a physician testifies as an expert, by giving his opinion, he is performing a strictly professional service. The purpose of his service is not to prove facts in the cause, but to aid the court or jury in arriving at a proper conclusion from facts otherwise proved. All attempts to make a distinction between attorneys and physicians are frivolous.

If physicians or surgeons can be compelled to render professional services, by giving their opinions on the trial of criminal causes without compensation, then an eminent physician or surgeon may be compelled to go to any part of the district or state, at any and all times, to render such services, without other compensation than such as he may recover, as ordinary witness fees, from the defendant in the prosecution, depending upon his conviction and ability to pay. This, under the general principles of law and the constitution of the state, he can not be compelled to do.

THE TOLEDO MEDICAL AND SURGICAL JOURNAL.—We have heretofore referred to this journal as one of the best and most useful of American medical publications; indeed, it is worth more to the doctor than some journals we might name which make greater pretensions and furnish a larger number of pages. Opie replied to a frivolous fellow who asked him what he mixed his paints with, "with brains!" The T. M. and S. Journal is edited with brains.

We take pleasure in informing those who wish to subscribe for this excellent Toledo publication and for the American Practitioner, that the two journals will be furnished them for \$3.50 yearly: of course this proposition is for new subscribers for 1878.

MALPOSITION OF THE STOMACH.—Dr. George Cannon, of Boscobel, Wisconsin, reports the following remarkable malposition of the human stomach, as shown by a post mortem examination :

Upon making an incision, commencing at the xiphoid cartilage and continuing down the median line nearly to the pubes, a dark tumor (in color much resembling the liver) was revealed all along this line, so soon as the abdominal wall was fully divided, and it extended to within about four inches of the pubic junction. Lateral incisions being made, whereby the abdominal viscera were more fully exposed, the startling discovery was made that the dark object was really the stomach in a highly congested state. When fully exposed it presented the appearance of a distended colon, minus the band, having a uniform diameter of about four inches. The cardiac end was resting in the left iliac, and to the right of the median line was found the pylorus—all being secured in this remarkable position by intestinal integuments. From this point the organ ascended (not strictly in parallel lines, for there was a lapping of the lower portion), and formed an arch resting against the diaphragm. The position of the cardiac end involved the necessity of a very considerable elongation of the œsophagus, and correspondingly the location of the pylorus changed the duodenum, which was also elongated to enable it to connect with the jejunum. In all other respects the alimentary canal was normal.

The deceased was forty-five years old, and by occupation a farmer. Two days previous to his death he was attacked with severe pains in the hypogastrium, and the physician in attendance, after carefully noting the symptoms, concluded that he had a case of intussusceptio. Counsel being called, a different conclusion was reached, and the difficulty was declared to be obstructed feces. However, all efforts proved futile, and the man died. The autopsy developed the fact that stricture of the pylorus was the cause of death. Now, here was a man who had reached the age of forty-five, with health up to the average, having a digestive apparatus so strangely con-

structed that it would seem impossible for digestion to be successfully carried on; and yet the facts clearly prove that the abnormal position of so important an organ as the stomach (which must have obtained during fetal life) did not affect the health of the individual.

In Todd's *Cyclopædia of Anatomy*, Vol. V, page 404, the variety of the malposition which Dr. Cannon has reported, is referred to. In Atlee's work on *Ovarian Tumors*, page 312, a case of dilatation of the stomach resembling an unilocular ovarian tumor is reported. Indeed, the similarity between the case of Dr. Atlee and that of our correspondent is, in many respects, most striking: in each patient, too, there was stricture of the pyloric orifice, though in that of Dr. A. the stricture was malignant.

HONORS TO THE LATE DR. L. P. YANDELL.—Seldom has the death of an eminent member of the medical profession in this country, called forth a more general expression of sorrow than has that of Dr. Yandell. Many and eloquent tributes have been paid to his memory. One of the best of these was by Dr. T. S. Bell, in an address delivered at the recent Commencement of the Medical Department of the Louisville University. Dr. Bell was peculiarly fitted to pronounce a suitable eulogium upon the departed; he had been a pupil of Dr. Yandell's, and long been a professional associate and devoted friend. We hope this admirable address, this just tribute, already published in the *Courier-Journal*, will be put in more permanent form. To it might well be added the excellent sketch of Dr. Yandell, and a list of his contributions to medical literature, from the pen of that indefatigable worker, Dr. J. M. Toner, published in the *Nashville Journal*.

DR. DAVID W. YANDELL.—Some time in March Dr. Yandell will go to Europe, remaining a few months. During his visit abroad he will write frequent letters for the *American Practitioner*. Those who know how peculiarly gifted he is as a writer will anticipate these letters with great interest.

TOLEDO SCHOOL OF MEDICINE.—The annual announcement of this school for 1878 is before us. “The primary object of this school is to provide that preliminary instruction requisite, or at least desirable, for admission to the medical college;” that is, “the school shall stand in the same relation to the medical college, that academies or high schools do to colleges or universities.” There is a hospital in connection with the school, also a museum, laboratory and dispensary clinic.

The instruction here is to take the place of a preceptor, and it will probably be very superior to the old plan of preparing students for medical schools. We hope the school may be encouraged by a large attendance, and wish there were more institutions of the same kind, with only four or five colleges in the United States that had the power to confer the M. D.

DEATHS OF EMINENT MEN.—It seems as if this winter were making sad havoc with names eminent in our profession. Last month we referred to Peaslee, Yandell and Stokes as having fallen; and this month we have to record the departure from this life of Dr. Fleetwood Churchill, so distinguished in the three departments—obstetrics, gynecology and pædiatrics—a man whose loveliness of character, and whose kindness especially to American physicians visiting Dublin, were worthy of all remembrance; and also of the great French physiologist, Claude Bernard.

MEDICAL GRADUATES AT LOUISVILLE, CINCINNATI AND INDIANAPOLIS, 1878.—The number of students just graduated by the medical colleges of Louisville was, from the Hospital College seventeen, from the Louisville Medical College seventy, and from the University seventy-one.

The number graduated by the medical colleges of Cincinnati was, fifty-one from the Miami Medical College, one hundred and two from the Medical College of Ohio, and thirty-three from the Cincinnati College. In Indianapolis, the College of Physicians and Surgeons graduated forty-one, and the Indiana Medical College twenty-nine.

THE AMERICAN PRACTITIONER.

APRIL, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

PULMONARY CONSUMPTION.*

BY GHISLANI DURANT, M. D., PH. D.

Member of the American Medical Association, Member of the Medical Society of the County of New York, Fellow of the New York Academy of Medicine, Etc.

SCROFULOUS PHTHISIS.

Scrofula, which we may look upon as a sort of connecting link between suppuration and tuberculization, is a most fruitful source of inflammation, of purulent products, and of pyemic conditions. The first description of scrofulous phthisis dates back to Morton. Succeeding observers have almost, without exception, grossly exaggerated or entirely denied his conclusions. Thus, on the one hand, Laënnec and his school do not admit the existence of scrofulous phthisis; while, on the other hand, Sauvages† and Portal‡ make all hereditary phthisis depend upon a strumous affection. Some observers go

* Continued from March No., p. 168.

† Sauvages. *Nostalgie*, tome ii, pp. 272 and 409.

‡ Portal. *Nature et Traitement de la Phthisie Pulmon.*, p. 43. Bidlot, p. 110.

further still. According to Bayle,* every phthisis is scrofulous in its nature; Graves† is of the same opinion; while Lugol‡ would have scrofula to be one of the modifications, or rather one of the symptoms, of phthisis. Scrofula, according to Broussais,§ is only a local alteration, due to irritation and inflammation of white tissue, developed under the influence of the lymphatic temperament.

“Long since,” says Virchow,|| “I demonstrated the analogy existing between alterations taking place in the lymphatics in the scrofulous tuberculous diathesis, and in typhoid.”

Bazin** describes the stages of scrofula as, first, hypertrophy; second, adenitis or inflammatory engorgement; and third, tuberculous infiltration.

Villemin†† regards caseous degeneration as a local lesion, which, in the great majority of cases, follows pathological changes occurring in tissues where the lymphatic radicles of the diseased ganglia are distributed.

Guersand‡‡ says that “scrofulous adenitis must henceforth be considered as a form of general tuberculosis.”

Tubercles of scrofulous origin usually present certain characteristics, which may enable us to recognize them. Very often they are found in one lung only; they are large, and exist in compact masses. They have a great tendency to undergo complete fatty degeneration, so that it is not at all rare to find them having a decidedly fatty look; even those that soften first undergo a far greater fatty degeneration than tubercles of other forms of phthisis. They remain a long time before softening begins, and this process progresses very slowly.

The portions of the lung surrounding the tubercles are

* Bayle. *Recherches sur la Phthis. Pulmon.*, p. 76. Paris, 1810.

† Graves. *Clinical Lectures*, ed. by Neligan.

‡ Lugol. *Recherches sur les Maladies des Scrof.* 1844.

§ Broussais. *Traité des Phlegmasies Chroniques*, tome ii.

|| Virchow. *La Syphilis Constitutionnelle*, trad. Picard, p. 16.

** Bazin. *Leçons sur la Scrofule*.

†† Villemin. *Etudes sur la Tuberculose*, p. 204. Paris, 1868.

‡‡ Guersand. Article, *Scrofule*. *Dict. de Médecine*.

sometimes the seat of a gelatinous exudation. According to Niemeyer, under such a condition, there will be found at the outset, especially at the surface, or on the borders of the lung, or in the parenchyma, near the miliary tubercles, isolated lobules, transformed into gray or reddish-gray homogeneous masses. A few whitish or yellowish points then make their appearance, and go on developing until the whole presents a uniform yellow, smooth and dry appearance. Imbibition by the tissues of the lung, their destruction, and the formation of irregular cavities, with jagged edges, soon follow, and all the symptoms of phthisis are manifest. This form, on account of its superficial seat, often attacks the pleura, producing pneumothorax.

Bazin also has shown that scrofulous tubercle is sometimes deposited, in more or less considerable masses, on the internal face, and sometimes even upon the external face, of the pleura.

In scrofulous, as in other forms of phthisis, the softening of the tuberculous deposit leads to the formation of cavities, while ulcerations in the larynx, trachea or intestines, are rarely met with in this form of the disease; their occurrence in the lymphatic, cervical and mesenteric glands, the result of infiltration, is quite common.

Abscess of the lung, according to Bazin, must be connected with scrofulous phthisis, since it is not only found coëxisting with pulmonary tubercles, but when isolated its symptomatology coincides with that of phthisis. Sometimes these purulent collections present all the characteristics of a deep metastatic abscess, and are found in the middle of the pulmonary parenchyma; but more often the cysts are situated immediately under the pleura, or between the lobes of the lung.

Like all the accidental forms, the scrofulous may, after a time, become complicated with the essential phthisis, through the development of neoplastic tubercle.

One of the characteristic consequences of the scrofulous diathesis is the predisposition to chronic inflammatory affections of the skin and mucous membranes. A glance at a scrofulous person is sufficient to recognize the affection: the

thick, cracked lips; the yellow, dirty, carious teeth; the fungous gums; the foul breath,—all tell of a diseased mucous membrane; while his bleared eyes, his large, scabby nose, his constant snuffling, indicate the existence of a constitutional vice. Add to the above coryza, bronchitis, diarrhœa, disease of the skin and ulcers, and you have before you the sad lot of the scrofulous individual. His phthisis is only the effect of his predisposition to chronic inflammatory affections.

It is but rarely that hemoptysis occurs at the onset of scrofulous phthisis; and its occurrence would lead to a very strong suspicion of the presence of essential phthisis as a complication, though, in the latter stages of the disease, hemorrhages, resulting from the ulceration of a blood-vessel, are quite common.

The softening of the tubercles is announced rather by physical signs than by an aggravation of the symptoms. There is little or no hectic fever; cough and purulent expectoration, especially in the morning, is present; the patient's appetite remains fair; his face is full or rather bloated, and the cheeks present a circumscribed redness, while the embonpoint remains. "It is curious," says Bazin,* "to see individuals, in whom we recognize, by percussion and auscultation, vast caverns in the subclavian regions, apparently enjoying all the attributes of perfect health, going into society, and attending to their usual occupations, as if they were not sick."

Hence when, in a manifestly scrofulous subject, we find the general symptoms of phthisis; when these symptoms have followed a bronchitis or a pulmonary inflammation, whose progress has been slow; when hemoptysis has been absent at the outset of the disease; when there is but little or no hectic fever; and, finally, when the preservation of the strength, appetite and embonpoint, form a strong contrast to the grave lesions revealed by a physical examination of the lungs, we may diagnose with certainty scrofulous phthisis.

The general treatment of scrofula in youth, the treatment

* Bazin, loc. cit., p. 465.

which of all gives the best results, is sea-bathing.* We must watch carefully for any catarrhal or inflammatory affection of the pulmonary organs in those who are scrofulous. In such a case, besides expectorants, we have need of antiscrofulous treatment. None will equal mercury. (Graves, p. 526.) We must next endeavor to improve the general nutrition, by attention to the quality and quantity of the food, by enjoining residence in a healthy climate, by ordering exercise in the open air, by taking care that the patient never sits or sleeps in a vitiated atmosphere, and by advising warm clothing.

Among medicaments, unless contraindicated by digestive weakness, we give cod-liver oil—the best is Moller's. For the heavy, bloated patient, iodine and the iodides and bitters. Bazin highly extols the tincture arum triphyllum. When not contraindicated, the hypophosphites, leaving off their use if they produce excitement of the genital organs. Trousseau recommends that a large hemlock plaster be applied to the chest. A favorite and fashionable mode of treatment consists in the use of mineral waters. Those containing sulphur, iodine, bromine or arsenic, should be selected. The grape-and-milk cure have, for the past few years, been spoken very highly of in Europe.

Much attention should be given to the diet, which must be at once tonic and reparative. Nutritious, easily-digested food, tonics, quinia, wine in moderate quantities, should be ordered; while vegetables generally, food rich in starch, and sweets, should be forbidden.

SYPHILITIC PHTHISIS.

The physicians of the last century described, under the name of *phthisis a lue venera*, a pulmonary affection caused by the venereal virus, and differing from that special state we call cachexia, without, however, giving its anatomical lesions.

Many authors have written upon the connection between syphilis and tubercle. Morgagni regarded it as merely a pre-

* Brochard; des Bains de mer chez les Enfants. Paris, 1864.

G. Durant; Sea-Bathing—its Uses and Abuses. Cogswell. New York, 1877.

disposing cause of ordinary phthisis. Laënnec and Andral consider syphilis as favoring the development of tubercle, by the state of marasmus it produces; Beaumes thinks that the phthisis is due to a special morbid perversion of the nutrition of the lung by the venereal poison; while Bayle and Portal speak of a morbid excitation of the lungs from the same cause. It is only within the last few decades that the existence of a special form of phthisis, due to syphilis, has been established, and to this the name of syphilitic phthisis given.*

Without dwelling upon the facts gleaned from medical works, upon which the two theories of the action of syphilis are founded, we may briefly state the two doctrines:

1st. Certain pulmonary diseases are produced directly by syphilis.

2d. Syphilis is a simple occasional cause of these diseases.†

Syphilis, during the eruptive stage, especially in young women, may give rise to symptoms indicating the development of phthisis. Cases may be cited from the practice of Von Ziemssen,‡ Lancereaux and Frey,§ in which deposits in the lung accompanied by hectic fever, in persons suffering from syphilis, yielded promptly to mercurial treatment.

Syphilis can also cause destruction of the lungs, either through the injury done the general health, or from the matter from laryngeal ulcers being carried into those organs.

Grandidier|| states that among several hundred cases of constitutional syphilis, he has treated thirty with lung diseases, which he believed to be syphilitic, on account of the history, physical changes, and success of treatment. All the patients were adults. The right middle lobe, near its base, was most often involved; the left lung very rarely. There were signs of

* Baümbler. Art. Syphilis, *Cyclopædia of the Practice of Medicine*, Vol. III, p. 211. New York, 1875.

† Lancereaux. *Traité Historique et Pratique de la Syph.*, p. 324. Paris, 1874.

‡ Ziemssen's *Cyclopædia of the Practice of Medicine*. Translation. William Wood and Co. New York, 1875.

§ *Allgemeine Medicinische Central-Zeitung*. Berlin, June 28, 1876. Stuck. No. 52.

|| *Archives of Dermatology*, Vol. II, No. 11, p. 180. New York, 1876.

consolidation, sometimes of a cavity; the lower lobe always remaining normal. The author believes the localization of the disease upon the right middle lobe to be pathognomonic, while at the same time it is diagnostic of the absence of cheesy pneumonia, in which the apices are most prone to suffer. Of Grandidier's thirty cases, the right middle lobe was involved in twenty-seven, the apex of the right lung in two, and the left lung in one case only. He names Michaelis* as a supporter of his view, that in syphilitic phthisis the apex of the lung is seldom involved.

Jos. Franck† has described as syphilitic phthisis, a chronic bronchial or pulmonary affection caused by syphilis.

Führer‡ says that in the adult there is found a special form of pneumonia, the result of syphilis, in which there is a simultaneous though distinct onset of a diffused infiltration of the lung, and a lobular bronchial exudation.

Dietrich§ has described grayish cicatrices, formed of hard tissue, in the lower lobe of the lung of a syphilitic.

Ricord states that "for several years we have had, in a number of autopsies, large enough to enable us to form an opinion, pulmonary lesions which must, of necessity, have had their origin in syphilitic tubercle."

According to Virchow,|| all gummata originate in a proliferation of the connective tissue; and the beginning of their development is similar to that in the formation of granulations.

It is but very recently that the circumscribed or gummy pneumonia, pointed out by Morton,** Astruc and Fabie, has really been studied; and even now we must admit that our knowledge of it is very imperfect. The few facts recorded show that these growths are deposited any where in the lung, with a tendency, when they occupy the superior lobe, toward the middle and lower portion, rather than the apex.

* Comp. der Lehre von der Syph., 1865, p. 126.

† Quoted by Bidlot. Phthisie Pulmonaire, p. 131.

‡ Quoted by Virchow. Syphilis Constitutionnelle, trad. Picard, 1860, p. 155.

§ Quoted by Bidlot, p. 134.

|| Virchow. Syphilis Constitutionnelle, p. 675.

** Morton. Phthisiologie, p. 107.

These neoplasms exist in variable numbers; sometimes they are single, more often multiple; but their number rarely exceeds six or eight. The gummy tumor, though essentially the product of a dry inflammation, soon undergoes the granulo-fatty metamorphosis; and, from a hard, elastic body, it becomes a caseous mass, the changes beginning at the center and extending to the circumference. At this period the neoplasm may, in part or entirely, be absorbed; usually, however, it is expelled through the bronchi, leaving a cavity, varying in size, lined by a caseous deposit, and enclosed by a membranous wall, of more or less dense fibrous tissue.

By what means the contents of this cyst are evacuated is not known, but there is every reason to believe that it does not differ from that which takes place in the case of subcutaneous cellular gummata—ulcerative inflammation. The ulcers in the lungs, like those of the tissues just mentioned, may heal and leave cicatrices. These were, for a long time, supposed to be due to tuberculosis alone; but there is every reason to think that the traces of different diseases have often been confounded.

A very careful examination is necessary to determine whether the phthisis be of syphilitic origin or not. Diffused chronic pneumonia is usually circumscribed, rarely attacking an entire lobe; the resulting neoplasm contains within thick walls a yellowish substance, more or less striped, and differing slightly from the hard, brilliant, marbled substance, the result of an ordinary chronic pneumonia. The gummata in syphilitic phthisis are the result of a dry inflammation, are slightly vascular, and surrounded by a fibrous zone, which is very thick (p. 324).

Yvasen,* while denying that syphilis can produce tubercle, admits that it may borrow the various symptoms which characterize the presence of tubercle, such as hectic fever, emaciation, incessant cough, and shortness of breath.

The differential signs are, absence of fever, exacerbation of pain during the night, and a breath so fetid that once recog-

* Yvasen. *Des Métamorphoses de la Syphilis*, p. 345. Paris, 1854.

nized it can not afterwards be overlooked. The feeling of oppression in syphilitic phthisis is referred to the larynx; in tuberculosis, to the chest. "What if in a patient with a more or less complete aphonia; tormented by an incessant cough, and a constant and extreme sensation of suffocation; reduced by insomnia to a great degree of emaciation; to these be added the absence of tubercular deposit in the lungs, or at least the presence of such a deposit in a degree not at all sufficient to account for the general state; a thready, mucous expectoration, very rarely puriform, and always differing from the striated, rounded, mummular expectoration, containing portions of white opaque matter, resembling boiled rice, the characteristic sputa of tuberculosis; if there be no true hemoptysis, and the antiphlogistics, the calmants, etc., are powerless, I say that I have a right to suspect that the disease is specific." "My belief would become complete, and my diagnosis beyond cavil, if a careful examination revealed, with the simulated signs of tuberculous phthisis, the coëxistence of symptoms of syphilis, such as a papulous, tuberculous or pustulous eruption, a rebellious purulent ozena, gummata, exostoses, caries, pains in the bones at night, or aggravated during the night; then in nearly every case the mask falls, the phthisis tuberculosis disappears, and the syphilitic affection remains."

The physical signs, of the presence of gummy tumors in the lung, become more evident after the softening has taken place; then the examination gives the signs which accompany any excavation of the lung tissue.

There are no true pathognomonic signs of syphilitic phthisis; its diagnosis must rest chiefly upon the antecedent history of the patient, and the nature of the concomitant affections. Certain peculiarities of the pulmonary disorder may, however, aid us in determining whether it be of syphilitic origin or not. Tuberculous phthisis differs from it in its more rapid development, the greater extent of lung involved, and its beginning being commonly at the apices of the lungs.

The prognosis in syphilitic phthisis is always grave, not so

much on account of the pulmonary lesions, as on account of the alterations which take place at the same time, and from the same cause, in the other viscera. Although a cure is often possible, we must never forget that these affections of the lungs never show themselves until an advanced stage of the syphilitic disease, and therefore when the organism has already undergone a grave modification.

The basis of treatment of this form of phthisis consists, of course, in the employment of medicines which destroy the special virus. We would err, however, if we employed these alone. Cod-liver oil, expectorants, calmants, bitters, tonics, and quinia, all aid and should be used with the specific medication, which includes mercury, potassium iodidi, and sudorifics. Potassium iodidi has been used with much success, especially in those cases where the patient had undergone a mercurial treatment.

HYDATID PHTHISIS.

The presence of hydatids in the lung produces so rapidly so great a state of weakness in the system, that several authors characterize this state as hydatid phthisis, thus expressing, in a forcible and brief way, the grave pathological changes impressed upon the organism by the presence of these cysts.

This is a purely accidental lesion. The parasite enters by chance the organism, and is left in some organ, where its presence is made known by local disturbances and physical signs; the constitutional disturbance being only consecutive to the loss partly or completely of the organ, and the suppression of an indispensable function.

When bronchitis or pneumonia, caused by the presence of these parasites, becomes chronic, there is found very often tuberculous matter, by the caseous degeneration of the cysts, which have developed in the respiratory organs, and of the exudation consequent upon the irritation their presence produces.

Jenner was the first to demonstrate the hydatid origin of phthisis, by showing that phthisis in the cow was sometimes

the result of the presence of this parasite. About the same time, a learned French veterinary surgeon (Dupuy*), also pointed out the connection between the presence of hydatids in the lungs of the cow, and the development of phthisis in the animal; and thought that light might be thrown upon the origin and formation of tubercle, from a careful study of these cysts. In 1825, John Baron,† an English physician, attempted to prove that tubercles were only hydatids in a state of degeneration—an opinion held later on by Drs. Leveillé and Tigri.‡ In 1832, Dr. Kühn, of Niederbronn,§ discovered the part which hydatids take in the production of tubercle, and although he is generally accredited with the opinion that the latter is caused by hydatids, Bidlot tells us that his belief is just the opposite.

Dr. Hearn,|| in a very interesting work, has collected many facts, showing the importance of bearing in mind that such a form of phthisis, though rare, does exist, and is often mistaken for essential phthisis, until a careful microscopic examination of the expectoration shows the true nature of the disease, in which the characteristic signs of true phthisis—the cough, the expectoration, the hemoptysis, the night-sweats, and hectic—are all present. Dr. Hearn makes two varieties of hydatid phthisis:—first, that in which the onset is slow, and which is the usual form; and, second, where the attack is sudden and violent, the exceptional form.

The symptoms attending the presence of hydatids, in the pulmonary tissues, are of two classes, namely,—first, local; and second, general:

General Symptoms.

1. A dry, spasmodic, paroxysmal cough, which, later on, is accompanied by an expectoration of a variable nature.

* Dupuy. *De l’Affection Tuberculeuse Vulgairement Appelée Morve.* Paris, 1817.

† Baron. *Observations on Tuberculous Diseases.*

‡ *Revue Medicale Française et Étrangère*, Avril, 1850. Bidlot, p. 156.

§ Kühn. *Recherches*, etc. Strasbourg, 1822.

|| Hearn. *Kystes Hydatiques du Poumon et de la Plèvre.* Paris, 1875.

Should one of the cysts be ruptured, the cough becomes so violent that fear of immediate suffocation may well be entertained. Relief is usually obtained on the escape of a quantity of fluid from the mouth. This fluid is almost characteristic—clear, watery, and salty to the taste; it almost always furnishes to the careful observer sufficient grounds for a diagnosis.

2. Dyspnœa, whose intensity is dependent upon the size and position of the cyst or cysts.

3. Hemoptysis. Previous to the rupture of a cyst, the hemorrhage is very slight—rather an oozing of blood sufficient to stain the expectoration than a true hemorrhage. But, following the rupture of a cyst, and the expulsion of its contents, the hemorrhage is so great that suffocation almost follows. The hemorrhages are very sudden in their onset.

4. Pain in the afflicted side, with a sensation of the presence of a foreign body.

5. Loss of strength, out of all proportion to the appearance presented by the patient. The fever and night-sweats are very slight.

Local Symptoms.

1. A globular tumor of the thoracic walls, due to the presence of the cyst.

2. Diminution or total loss of the power of transmitting the sound of the voice to the thoracic walls.

3. Dullness on percussion, when the cyst is in contact with the thoracic walls, the limits of which mark the outlines.

4. In certain situations of the cyst, absence or diminution of the respiratory murmurs, and puerile or bronchial breathing in its vicinity. Egophony very rare.

5. The expectoration is characteristic, and is either a clear fluid and transparent, or contains membranes.

But little can be done in the way of medication. Mercury, on account of its parasitidal properties, has been used. Beaumes relates cases where the mercurous chloride has been successful. Laënnec advises the use of sodium chloride. Bird, although doubting the efficacy of medication, thinks that po-

tassium bromide may destroy the hydatids. He advises also the use of kamala, which had been employed by Hjaltelin, of Iceland. It has been proposed to use iodine, camphor, santonin, in the form of spray, in order to reach directly the seat of disease. The surgical treatment consists in incisions, punctures, and the use of the continued current.

DIABETIC PHTHISIS.

Impressed by the gravity of the pulmonary lesions occurring during diabetes, and their extremely rapid development, several authors have been led to regard this disease as a cause of phthisis.

Diabetes was known to the ancients, as the descriptions of Celsus, Aretius and Paulus Egineta show, though our first real knowledge of its nature begins with the investigations of Willis, an English physician of the seventeenth century, who was the first to demonstrate the presence of sugar in the urine. The best work (with which I am acquainted) on this subject, is that of Dr. Bertail,* to whom I am indebted for the material immediately following:

Morton pointed out that a relation existed between diabetes and pulmonary phthisis (*de tabe a diabete*), and Rollo,† that in the sufferers from diabetes pulmonary symptoms existed. Reguoso,‡ believing that glycosuria was caused by impairment of respiration, made phthisis the cause of diabetes. Bouchardat§ says that in nineteen cases of deaths from diabetes, he found in every one tubercles in the lungs; while Griesinger,|| in 1859, stated that the result of his investigations showed that tubercles were present in forty four per cent. of the cases examined. Pavy** believed that the phthisis occurring during diabetes, is due to a chronic inflammation

* Bertail, (Er.) Etude sur la Phthisie Diabétique. 1873.

† Rollo, (John). Trad. par Alyon. Paris; An. VI.

‡ Compendium de Médecine Pratique, p. 35, 1839.

§ Bouchardat. Annuaire de Thérapeutique, 1841 à 1869.

|| Von Griesinger. Studien über Diabetes. Bertail, p. 15.

** Researches on the Nature and Treatment of Diabetes. 1862.

of the pulmonary parenchyma. Pidoux,* in his prize essay, devotes many pages to this subject; as do Durand-Fardel,† and Marshal de Calvi.‡

Pulmonary phthisis only occurs in very severe cases of diabetes; and, according to Bouchardat, it is necessary that the diabetes should have existed for a certain time, and a large amount of sugar—one hundred grammes—be passed; otherwise tuberculosis is not produced. If, however, the course of the diabetes be not arrested, or its severity modified, then, notwithstanding the previous condition of the individual may have been ever so favorable, one-third of the cases at least would develop and die from tuberculosis.

During the interval between the appearance of the glycosuria and the manifestation of pulmonary trouble, a period always more or less long, the patient has been greatly weakened and reduced in flesh by the constant drain due to the former disease; and even at the beginning of the pulmonary trouble, the general health is most seriously impaired.

The time at which phthisis is developed in a diabetic patient is dependent upon two sets of influences—the first, due to his hygienic condition and surroundings; and second, to causes inherent in the subject himself. Among the latter may be mentioned age, sex and constitution.

Diabetes is very rare in both infancy and old age, and is, therefore, at those epochs, seldom met with as a complication or cause of phthisis.

Diabetic phthisis, in the greater number of cases, runs a very rapid course; and most writers speak of caverns and other lesions of the lung, identical with those found in ordinary tuberculosis. In fact, the only characteristic at all distinctive of this form of consumption, is the rapidity of its development. It would be an error, however, were we to regard all the excavations found in the lungs as caused by tubercles. Pulmonary gangrene is quite frequent in diabetes, and as it does not present the fetor usually distinguishing it, a

* *Loco citato*, p. 309.

† *Traité Clinique et Thérapeutique du Diabète.* 1869.

‡ *Des Accidents Diabétiques.* Paris, 1864.

very careful examination is requisite, or this condition will be overlooked.

Pulmonary diabetic phthisis is so insidious in its attack, that it is almost impossible to fix, with any degree of certainty, upon the precise time at which it began. The patient has been losing flesh; his digestion is disturbed; gastralgia, increased after the ingestion of aliments, appears; nausea, eructations and vomiting follow, and the relation which should exist between the ingesta and egesta is broken. Respiratory disturbance, at first slight, increases rapidly, until the difficulty in breathing is out of all proportion to the other symptoms. The cough, at the beginning of the pulmonary trouble, is short, frequent, and often there is no expectoration; with the formation of cavities, however, expectoration begins, and toward the latter stages of the disease often becomes very abundant, and presents all the characters of the sputa of ordinary phthisis; night-sweats rarely occur; the skin is hot, dry, roughened and scabby, feeling somewhat like parchment. The temperature of the body—and this is almost peculiar to diabetic phthisis—is lowered. Hemoptysis is an exceptional occurrence.

Later on, as the phthical lesions increase, that which before was a complication or outgrowth of the glycosuria, becomes the leading disease; and, judging from the prominent symptoms, the case might be mistaken for an ordinary phthisis.

In the beginning, the treatment of this form of phthisis must be directed almost exclusively against the cause of the disease—the diabetes. A carefully selected diet, all sugar-forming substances being excluded, and the use of Vichy waters, bitters, a solution of ammonium carbonate with rum, extract nucis vomicæ, in from one-half to three grain doses, strychnia, in doses of from one-twentieth to one-tenth of a grain, give excellent results, by correcting some of the digestive disorders. Calcium sulphide has, in several cases, stopped all elimination of sugar in the urine. The patient should be kept warm; the tendency should be toward too great an amount of clothing.

If the diabetic phthisis has become established, then we must follow the treatment appropriate to ordinary phthisis, always remembering, however, that sugar-forming articles are to be strictly prohibited, and the diet wholly animal. With a nitrogenized diet, and a moderate amount of exercise, we may hope yet to diminish the intensity of the diabetes. If, however, tubercles have already been developed, we have but little chance of hindering the progress of the disease.

Cod-liver oil, as it is a hydro-carbon, may advantageously replace all farinaceous food. For the cough, opium and revulsives, (blisters, croton oil, etc.,) applied over the apices of the lungs, may be used with advantage.

NEW YORK CITY.

(To be continued.)

TYPHO-MALARIAL FEVER.

BY T. B. GREENLEY, M. D.

As far as I have observed, there has but little been published in the medical periodicals on the subject of typho-malarial fever. Indeed, Dr. Flint gives but little space to its consideration in his systematic work on practice. I think it is comparatively a new disease in our country.

I do not recollect having seen a case of it anterior to the fall of 1875, when some six cases came under my observation, all being in the same family. This family resided some fifteen miles distant in Bullitt county, and was under the medical care of my friend, Dr. Johnson, now of Pitt's Point.

I was called to see Mrs. C. in consultation on the 25th of September. She had been sick some ten days or two weeks, and her medical attendant had treated her in the usual way for remittent fever, without producing any favorable impression on the disease. She had some of the symptoms belonging to typhoid fever, and some belonging to malarial fever. There

were present some tympanitis, nervousness, incoherency in talking when partially asleep, sordes, and red-edged tongue. Of the malarial symptoms, she had nausea, exacerbations of pain, headache and flabby tongue. As Dr. Johnson had fully exhausted the virtues of quinia as an abortive of simple malarial fever, I advised simply an expectant treatment—only giving her a small powder of quinia and Dover's three times a day; also, should her bowels bear it, ten grains of the hyposulphite of soda in solution, as a febrifuge and alterative.

I saw no more of this patient until the 9th of October, when I was called to see the husband and eldest son and daughter, affected with the same character of disease. The wife or first patient was now about clear of fever, with some appetite, and in a short time became convalescent. The husband seemed to be more impressed with the typhoid element than had been the wife—more delirium, and a greater tendency to diarrhœa. The daughter was also more nervous than her mother had been. Before these latter three patients recovered, the second daughter and son were taken sick with the same disease, and ran very much the same course.

It was only occasionally that I had an opportunity of visiting these patients, and could not in consequence keep anything like a satisfactory record of the symptoms during the progress of the disease; and I believe that my friend, Dr. J., did not make notes of the cases. They all, as far as I observed, partook of the characteristics both of typhoid and malarial fevers; and all had the advantage of a free trial of quinia in the outset, without any apparent beneficial results. These six cases recovered, and have enjoyed good health ever since. In fact the eldest daughter, who was apparently the worst, and who was naturally quite delicate, has had better health than previously.

I saw no more of this disease until the 29th of July, 1876, when I was called in consultation with my friend and neighbor, Dr. Foss, to see Miss A., who had been sick some two weeks. She had, besides the ordinary symptoms of this disease, an eruption, very similar in appearance to varioloid, so

much so in fact as to impress Dr. F. with the necessity of using precautionary measures to prevent its spreading among the neighbors. Not having seen a case of the disease under consideration accompanied with an eruption similar, I was at first undecided as to whether it was varioloid; but on close inspection, I found that some of the sores had healed without pitting, others fully matured, and yet others in the forming stage. This condition convinced me that the case was not one of varioloid, as the whole crop of eruption in that disease makes its appearance about the same time. We put her on quinia and Dover's powder three times a day, with hyposulphite of soda in solution. She was in bed about six weeks and recovered.

I saw some four or five cases more during the summer and fall of this year, all of which ran about the same course, the same treatment being pursued, and all recovering. During the summer and fall of 1877, I saw some five or six cases, but only kept notes of two, which I considered as typical of the disease, only being more mild in some of the symptoms.

Mr. R., a young man of about twenty years of age, and naturally stout and healthy, had been sick a week when I was called to see him on 20th of October. He had complained of lassitude, headache and some fever. When I saw him his temperature was 104, while his pulse was only 60; respiration natural; tongue red at edges, but large, flabby, and covered with moist coat; bowels regular, and no tenderness; urine high-colored; intellect rather dull, but no delirium; some subsultus, but no jactitation or borborygmus. Although I was confident of the typhoid character of the case, I gave him the trial of free doses of quinia as in true remittent, but it did not reduce his temperature, or in the least modify any of the symptoms, as far as I could perceive. After giving him quinia in full doses, at short intervals, until I saw no good result, I then commenced my ordinary treatment of medium doses of quinia and Dover's powder, together with the hyposulphite of soda in solution, three times a day. Diet, milk and soups of different kinds; no solid food.

On the 23d, his temperature and pulse were the same as when I saw him on the 20th, although he had taken eight grains of quinia, five grains of Dover's powder, and ten grains of hyposulphite of soda, at intervals of four hours; the other symptoms about the same.

Oct. 26th. Temperature 102, pulse 60, other symptoms the same, except a tendency to diarrhœa. On this account suspended use of the hyposulphite of soda; besides he perspired freely at night.

Oct. 30th. Temp. 103, pulse 60, other symptoms about the same, except more incoherency; bowels checked, and hyposulphite of soda renewed, as his temperature had increased.

Nov. 5th. Temperature and pulse same, as well as other symptoms.

Nov. 8th. Temp. 102 and pulse 60; other symptoms same; same treatment continued.

Nov. 11th. Temp. 100 and pulse 50; all other symptoms modified; some appetite; treatment continued.

Nov. 14th. Temp. 98½, pulse 50; quite cheerful, and improving in every respect, in fact dismissed as convalescent.

The most singular symptom in this case was the infrequency of the pulse. Notwithstanding his temperature for several days stood at 104, his pulse never exceeded sixty per minute. His respiration stood at eighteen to twenty during his sickness. I have examined his pulse since his recovery, and find its natural frequency is sixty.

The other case of which I took notes was Mrs. V., a lady of about twenty years of age, naturally healthy. I saw her, the first time, on the 24th of October; had been sick a week; temperature 103, pulse 100, and respiration 20; tongue large, flabby, and red at the edges, with thin coating; intellect clear, some nervousness, slight subsultus, and jactitation; slight tympanitis, but no tenderness, except at the precordia; bowels torpid, urine somewhat scanty and high-colored. Tried her on quinia in full doses, with Dover's powder and hyposulphite of soda, for three days, without modifying the fever. Diet, milk and soup at regular intervals.

Oct. 28th. Temperature 104, pulse 96, and other symptoms about the same; changed treatment to five grains of quinia and five grains of Dover's powder three times a day, with ten grains of hyposulphite of soda at same intervals.

Oct. 31st. Temp. 103½, pulse 90, other symptoms about the same; treatment continued.

Nov. 5th. Temp. 103¼, pulse 88, other symptoms about the same; same treatment.

Nov. 10th. Temp. 101⅔, pulse 96; other symptoms same.

Nov. 14th. Temp. 100⅔, pulse 80; general improvement in other symptoms; appetite better; treatment and diet same.

Nov. 18th. Temp. 98, pulse 72; convalescent.

Remarks.—I have within the last three years seen, in consultation and my own cases, seventeen patients with what we term typho-malarial fever, all of whom recovered. The first cases I saw in 1875, not knowing anything of such a disease, I looked upon as being dangerous, and was doubtful of their recovery; but as they, as well as those seen in 1876 and 1877, all recovered, I am inclined to think most of such cases occurring in our section of country can be treated successfully.

The disease in its incipency has some of the characteristics, in many instances, of pure typhoid fever. The patient may complain, several days before confinement to bed, of general lassitude, loss of appetite, headache, with some fever, etc., but is in some cases more sudden in its onset, being very much like a case of true remittent. Therefore, it is a practice with me in all cases to give the patient the benefit of free doses of quinia, at short intervals, for forty-eight or seventy-two hours, so that if my judgment should be wrong in mistaking a case of simple remittent for one of typho-malarial trouble, the quinia treatment will correct the error. The reasons why I continue quinia in smaller doses at longer intervals, after I am convinced of the true character of the disease, are, in the first place, I believe that malaria is one of the factors playing a conspicuous part in the production of the trouble; and, secondly, I conceive it to be adapted to the treatment on

general principles, especially when combined with the other remedies. Our object in the treatment of typhoid fever is the gradual reduction of temperature, as well as to combat untoward symptoms and complications as they may arise. Hence we use medicines possessing febrifugal properties; and here the question arises, have we any better, and at the same time safer, than those of quinia and hyposulphite of soda? The Dover's powder, in conjunction with these remedies, exerts a soothing and quiescent effect on the nervous system, which seems to me to clearly indicate its use. There are some instances wherein the hyposulphite of soda is contra-indicated. These are where there is a tendency to diarrhœa, as that medicine has a slight laxative effect. But it is a habit with me to administer the hyposulphite of soda whenever it is not contra-indicated on account of diarrhœa, not only in this disease, but also in common remittent fever, believing it to exert not only a febrifugal effect, but also an alterative or antimalarious effect.

As to diet, it is my custom in this disease, as in true typhoid fever, to confine my patients on fluids, given at regular intervals—milk being the principal article; different kinds of soup or broth also being allowed as a change, with a little thickening, especially when convalescence sets in.

As to the true character of what is termed typho-malarial fever, there seems to be some controversy, both as to its cause and pathology. Surgeon Woodward, United States Army, is of the opinion that it partakes both of the nature of typhoid fever and remittent, and has for its factors the causes of both of these diseases. This view on his part seems to have been early taken, and apparently was corroborated by a great many army surgeons during the late civil war.

On the other hand, Assistant Surgeon Smart, United States Army, in a very able and interesting article on "Mountain Fever and Malarious Waters," in the January number of the *American Journal of Medical Sciences* for 1878, controverts this view in a very ingenious and apparently successful manner; but in order to do so, has to build up rather a new theory

in regard to malaria. The surgeon made most of his observations at Fort Bridger, in Wyoming territory, where he was stationed from August, 1873, to July, 1876. This locality is seven thousand feet above the sea level, and *a priori* should be free from malarial affections; but it seems what is called mountain fever, or what we call typho-malarial fever, is prevalent at that high altitude.

The investigating mind of Surgeon Smart induced him to analyze the water of Black's Fork, whence the troops received their water supply. He found a large amount of vegetable débris, and accounted for its presence by the action of the winds, gathering it from distant plains and valleys where malaria is generated in quantities, and carried up to the mountainous highlands and deposited, both by rains and snows in those regions. He ingeniously argues that if our established notions of imbibition of malaria from the atmosphere by inhalation and skin absorption be true, and disease be the result, it is as reasonable to suppose that water can absorb and retain it, and when drunk in quantities will have the same deleterious effect. Hence, he terms what was previously known in the mountains as "mountain fever," "malarial remittent." He says:—"Having thus identified mountain fever as a malarial intermittent, and referred it for causation and explanation of its peculiarities to the ingestion of malarious water rather than to exposure to malarial exhalations, there opens for our consideration a larger view than is seen in the slopes of the Rocky Mountains. The necessity for a modification of our accepted theory of malarial disease is apparent. Lancisi's doctrines are too exclusive. Water must be recognized as claiming a higher place in the disease-producing category; and the importance of this recognition can not be overestimated."

Now, this is not only a new theory for the induction of malaria into the system, but rather a plausible one, and I will not attempt to contradict it. Yet I can not altogether agree with the surgeon, that malaria was the sole factor in the production of his mountain fever cases; and I think we can ac-

count for the typhoid element in the fact that the men were in all probability deprived to some extent of healthy food, were exposed more or less to the severe weather prevalent in that high latitude; that they suffered no doubt in disquietude of mind, from home sickness, etc., all of which are calculated very greatly to depress the nervous system, and thereby act as a cause of disease. Might not such surroundings, in conjunction with malaria, produce diseased action simulating what we understand to be typho-malarial fever? I can not help concurring in the views of Surgeon Woodward.

As far as my observation goes, the disease under consideration differs somewhat from "typhoid fever," not only in its symptoms but in its subjects. In true typhoid, it is rarely you see a case over forty-five years of age; but in the few cases I have seen of typho-malarial fever, three were over fifty years old, but nevertheless the most of them were young. I think also that the pulse is not so frequent, in proportion to the temperature, as it is in typhoid fever. This was especially exemplified in the case of Mr. R., whose pulse never became more frequent than in health, and as the disease gave way became as low as fifty, which would have alarmed me had not all other symptoms been favorable. I have not yet seen a case where the diarrhœa was uncontrollable, although in several instances I have been compelled to use astringents. Delirium is not so common as in typhoid. I had one case, however, who was entirely delirious for over a week. The heart acts with better force, but not so frequent. The extremities, I think, keep warmer. In many cases we have the sordes on the lips and teeth, but not so universally as in typhoid. The tongue rarely becomes so dry, pointed, red and glazed, but is more apt to be flabby, large, with red edges, and coated at first with a whitish fur. Tympanitis is frequently present, but not so common as in typhoid. I do not recollect of noticing borborygmus. In most cases, for the first week, there is but little desire for food. The urine in general is diminished in quantity, and rather high-colored. As to its constituents, I have not made an examination to

ascertain whether it deviates in any particular from a state of health. I have not seen a case complicated with any other disease, and therefore think it not so liable in that respect as typhoid, although this may in a great measure depend on the season of the year in which it prevails; typhoid fever, on the other hand, prevailing at the time of year when its usual complications are more liable to occur. As to the duration of the disease, I think there is but little difference between it and typhoid, both diseases continuing from three to seven weeks.

I have had no opportunity to examine into the pathology of the disease, no doubt a careful study of which would throw much light on its true character. I can not think that it is a true enteric fever, as we ordinarily understand that term, but no doubt the *prima via* is to some extent involved, and forms the typhoid element of the disease. As I have seen comparatively but few cases of typho-malarial disease, and may have from such limited observation failed to have drawn correct conclusions in regard to its true character, I hope my brethren in the profession will contribute the knowledge they may have gained by a more extended observation and larger experience.

From the tenor of Surgeon Smart's remarks, he is inclined to believe that the majority of the cases of mountain fever, so called, are simply neglected cases of remittent, and under quinia treatment in the outset would have given way. He as much as says that the cases coming under his care, in the onset of the disease, were subject to the control of quinia. Now, if this were the case with the patients under his care, I am confident they varied somewhat from the type of the disease under consideration; for it has been my invariable practice to administer quinia in full doses, repeated at short intervals, until I see no utility can be derived from its further use in that way, and by this means determine positively the character of the trouble I have to treat, hoping it may be only remittent and thereby break it up.

As to neglected remittents, I have had a limited experience

in their treatment. Over thirty years ago, when I commenced the practice of medicine, remittent fever was treated very differently from what it is now. The old practice was to bleed, vomit, purge, mercurialize and blister; and in the course of ten days or less, in many instances, we had the typhoid element developed, simply from irritation or subacute inflammation of the bowels. It may be said that these were not neglected cases; they were worse, and as far as I have observed more unmanageable, when having been treated in this heroic manner than those receiving no treatment. There is no doubt that in neglected cases the fever has a tendency to involve the bowels, which constitutes the dangerous element of the trouble. Under the old régime, what few cases I saw, which terminated fatally, this result was brought about by involvement of the bowels. I have no doubt many cases of simple remittent have, by maltreatment or neglect, terminated with typhoid symptoms, and been set down either as typhoid or typho-malarial fever. And possibly the cases coming under the care of Surgeon Smart, at Fort Bridger, may have been neglected or previously badly managed cases of simple remittent, without the typhoid element existing in the outset. Should these have been the facts in his cases, probably his theory of mountain fever is correct.

Now, as to the *cause* of this typhoid element, I have not as yet satisfactorily determined. At the house where I saw the first cases in 1875, there was apparently nothing in the surroundings to indicate any such cause in action. The house is under-pinned with rock, and as the summer had been an unusually wet one, the water may have, and no doubt did to some extent flow under it, and settling and being confined, doubtlessly produced the malarial element of the disease. The residence is situated on a high knob, some two hundred and fifty feet above the level of Salt River bottom, and had been heretofore comparatively free from all malarial trouble. But, in this instance, we have yet to account for the typhoid element; and I can only do so on the hypothesis that the spring which afforded the water supply was situated slightly

down the hill, and owing to the excessive rain had washed into it some *materies morbi* from above. The stable and hog-pen being situated higher than the spring, yet not immediately above it, may have contributed their share in contaminating the water. The cases occurring at this house were the only ones I saw or heard of in the practice of any of my neighboring physicians during said year. I have heard of no malarial trouble in that family since.

At the house of about the worst patient I had in 1876, at least who had the severest typhoid symptoms, viz., diarrhœa and delirium, I noticed that around the cistern, which was situated just in front of the kitchen door, a great deal of kitchen offal, slop, etc., had been thrown, and in a state of fermentation. No doubt a great deal of the strength of this fermenting mass of vegetable and animal matter found its way through the cistern-wall by percolation, and contaminated the water. This patient was the only one at the house affected with this disease, and she drank more of the water than any two of the family. The house is located in the Ohio Valley, where generally a plenty of malaria exists.

It may be, had I examined closely the premises of all the patients I saw, I could have, in some degree, satisfied myself as to the cause of the typhoid element of the disease; but as this disease occurs at the season of the year when we have a great deal of malarial disease to attend to, our time for investigation is somewhat limited.

Though this disease has not increased in my practice since I first saw it, yet I hear of its increase in the practice of several of my neighboring friends, and feel confident that it will become an annual trouble in our section of country. Hence the necessity of further investigations as to its cause, as well as its nature and treatment.

FOUR HUNDRED OBSTETRICAL CASES—STATISTICS AND OBSERVATIONS.

BY G. W. H. KEMPER, M. D.

In the following paper I propose to study the history of four hundred obstetrical cases occurring in my practice during the past few years. I think they will be of some value to obstetrical literature, from the fact that they occurred in a rural district among a healthy population. I have made no selection of cases, simply taking my first four hundred recorded in the case-book, excluding only consultation and premature cases, in order that an impartial record might be made.

The largest number of labors (forty-nine) occurred in August, and the least (twenty-three) in February. Two hundred and sixty-three of the cases were multiparæ, and one hundred and thirty-seven primiparæ. Of the presentations, three hundred and ninety-one were cephalic, fifteen breech and footling, and two shoulder. Seven of the women were colored.

Of the fifteen breech and footling cases, twelve children were saved and three lost. Four times this presentation occurred with one of twins; and in one case, both—*i. e.*, five of the entire number—occurred in twin cases.

One of the two shoulder presentations was complicated with a prolapsed cord, and occurred in a twin case—first child. I performed version, and saved the child. In the second case, the woman had been in labor for some hours; I turned and delivered a still-born child.

Version was performed in three instances, including the two cases of shoulder presentation. In the case of the twins, after I had turned and delivered the first child, the second presented by the vertex and a hand, with the further complication of detachment of the placenta, which was presenting in advance of the head. I performed version immediately. The twins were both females. The second one was still-born. In the single case, the child (a male) was still-born.

I met with twins eight times, that is once in fifty cases. In five of the cases, one presented by the breech and the other by vertex; in one case, both by the breech; in one, the first by a shoulder and the second a vertex; and in the remaining one, both by vertex. In three cases, one was a male and the other a female; in four, both were females; and in one, both males. To sum up, eleven were females and five males. All the children were saved except the one mentioned under version.

I encountered two cases of prolapsed funis. One was in the twin case mentioned. Version was resorted to, and the child saved.* The second occurred in a vertex presentation, and the child was still-born. In one of my footling cases, the cord was around the thigh, and contributed to the child's death.

Convulsions occurred five times. Four of the cases were primiparæ, and one a multipara. In three cases convulsions began before delivery, and in two afterward. The maternal mortality was one; of the children, four were saved and one lost. The sex of the children stood four females, and one male. The fatal case presented some points of interest.

Mrs. W., aged twenty years, primipara, after an easy and in every respect natural labor, gave birth to a female child at one o'clock A. M., December 19, 1870. Not an untoward symptom presented until the evening of the third day after confinement, when she laughed violently at some little incident for a few moments, and then passed into a convulsion. Others recurred at irregular periods, and all of that variety termed by some writers *hysterical*. Chloroform and the usual remedies were

* "Simple reposition of the cord by the fingers or catheter, the patient being in the genu-pectoral position, often succeeds; but I believe that, of all the modes of treatment recommended, the most successful, as regards the child, is turning. Thus, of sixty-four cases—in the practice of La Motte, Mauriceau, La Chapelle, Boivin, Shekleton, Giffard, and McClintock—where turning was resorted to solely on account of the funis presenting, fifty-two of the children were born alive. This list does not include cases where the hand or arm presented with the cord, nor those in which the child was apparently dead when the operation was undertaken. No other plan of treatment can show such good results as this." (McClintock, note in Smellie's Mid., new Syd. Soc. ed., Vol. I, p. 341.)

faithfully tried, and although the type might have been considered the most favorable, and notwithstanding each succeeding paroxysm grew milder, nevertheless she gradually sank and died on the evening of the 25th.

If we occasionally are surprised to see a case of apparently mild convulsions terminate in death, we are more often surprised to see desperate cases recover. I beg of younger physicians never to abandon any case of puerperal convulsions, however hopeless it may appear, until death actually ensues; a practice of a few years will confirm the wisdom of this rule, and its observance will win laurels for the practitioner.

Post partum hemorrhage occurred in five cases. Since I have adopted the custom of administering to every multipara a full dose of ergot at the termination of labor, I have had no troublesome hemorrhages.

I met with five cases of adhesion of the placenta:

Case I occurred at a second labor, and I had considerable difficulty in detaching the placenta. She told me the same trouble occurred with her first labor, when counsel was summoned from a distance to remove it.

Case II was a primipara. She has been confined since with her second labor, and the attending physician removed the placenta with much difficulty.

Case III was with a fifth labor, and was the most troublesome and difficult case I ever encountered, as it adhered so firmly that it was difficult, as Barnes says, to determine the boundary line between the uterus and placenta, so intimate a union had taken place between them. Adhesion of marked firmness occurred with three of her former four labors, and she has been confined again quite recently with a sixth labor, and I was compelled to remove the placenta by introducing my hand. In her six labors adhesion was present with five.

Case IV was with a fourth labor, and was the only time adhesion had been present.

Case V was with a second labor, and adhesion had occurred with her first.

I have long since been convinced from observations that

placental adhesion is a complication which is very prone to recur in successive labors. My cases confirm my opinion.

I used forceps twice, both in cases of convulsions. The women were primiparæ, and recovered without an untoward symptom. The children were females—one born alive, the other still-born. After an experience of thirteen years, as I look back over my professional life, I call up cases which I met with in my early years when from timidity I failed to use the forceps—trusted to nature, found her inadequate to the task, and result a still-born child. A better experience of later years has convinced me of the advantages of the forceps. During the last two years I have used them several times with satisfaction, and as a number of appeals have recently been made to the profession for a more general use of the forceps, I desire to record my experience in their favor. During the last three months I used forceps in two cases where, I have good reason to believe, I saved the lives of two children, and the mothers a great deal of unnecessary pain. The opposition to forceps by non-professional persons is fast dying out; in fact, I expect to see the day in this community, and that not many years hence, when the friends of the lying-in woman will *demand*, in tedious cases, that the forceps be used for her relief and the safety of the child.

Three deaths occurred in the four hundred cases. One from convulsions—case of Mrs. W., mentioned before. One of general debility, the patient being enfeebled by two former abortions and nursing sore-mouth. The third died from pneumonia, the initiatory chill of which excited labor, and she was delivered the same day, and died nine days afterward; properly speaking, this case might be excluded from the list.

In the four hundred labors, four hundred and eight children were born; two hundred and eight of whom were males, and two hundred females. All were born alive except thirteen, eight of whom were males and five were females; seven occurred with primiparæ, and six with multiparæ. The presentations were as follows:—vertex nine, shoulder one, and breech three. The causes of death I reckoned as follows:—tedious

labor, eight; putrid, one; prolapse of funis, one; early detachment of placenta, one; unknown, one; debility of the mother, one.

A few peculiarities might be mentioned in conclusion of my paper. Of the whole number of births, five were illegitimate. One case was complicated with erysipelas of one of the legs to such an extent, that nearly all the skin and cellular tissue from the ankle to the knee sloughed off. Several large ulcers were left and refused to heal, and the leg was amputated a few years afterwards.

I had one patient, whom I attended in three labors, where for the first two days milk appeared in the breasts, and then disappeared without again forming. This was the case, she informed me, in four former labors.

In one case, the removal of the placenta did not color my hand, and no lochial discharge was present. The patient, a primipara, had not an untoward symptom.

I met with one case of spina bifida, complicated with other deformities. The child lived for two weeks. No severe laceration of the perineum occurred.

One case of œdema of the vulva necessitated numerous punctures to evacuate the serum, in order to permit the passage of the child.

I met with one case of inversion of the uterus coincident with the expulsion of the placenta. The after-birth was firmly adherent to the fundus, and after separating it I immediately reduced the inversion. This case has been more fully reported elsewhere.*

I met with two cases where I saw no reason to doubt that the health of the mother was impaired by the presence of a retained fetus. One, for some time before as well as after giving birth to a putrid fetus, had unmistakable symptoms of septic poisoning. The other case was a remarkable one, and I have reported it at length in a former paper, entitled "Retention in utero of the dead fetus," etc.†

MUNCIE, IND.

* *Indiana Jour. of Med.*, Vol. IV, p. 482.

† *Trans. Ind. State Med. Soc.*, for 1875, p. 23.

INTRA-UTERINE PREGNANCY, COMPLICATED WITH
EXTRA-UTERINE FETATION—RECOVERY.

BY J. M. DE ROSSETT, M. D.

Mrs. M., a large, rather tall, and an exceedingly robust woman, aged twenty-seven years, married four years, primipara, menstruated at sixteen, and enjoyed excellent and uninterrupted health, date of last menstruation some time in November preceding my first visit, was seen by me March 26, 1876. I found her suffering most excruciating pain in the right iliac region. She had had pain in this locality during the past month at intervals, though not very severe and usually controlled by domestic remedies; she supposed herself to be pregnant. Inspection revealed a tumor rather low down in the right iliac region, as large as a small fetal head, firm and solid, and encroaching somewhat upon the median line. The surface of the abdomen beyond the tumor presented nothing unusual.

A digital examination revealed the os soft and patulous, with but little development. There also existed right latero flexion to a moderate extent, with the uterus somewhat enlarged and adherent to the tumor. The uterine sound was not resorted to as a means of diagnosis. There were also present in the mammary glands changes indicating pregnancy, with morning sickness, etc.

On the 28th of March, two days after my first visit, there appeared a slight sanguineous discharge, lasting for one day. The pain was controlled by opiates, and gradually disappeared after seven or eight days. The tumor continued to enlarge for about one month after my first visit, and then ceased to grow, and did not again take on development. At this time the tumor had attained the dimensions of a large fetal head. The case was seen and examined by several medical gentlemen, among whom contradictory opinions were entertained as to the nature of the tumor.

After a careful review of the history and symptoms above referred to, it appeared to me that I had one of two things to deal with, viz., either an ovarian tumor or extra-uterine pregnancy: the latter seemed to have the more evidence in its favor, and I adopted this diagnosis. After the cessation of the pain her condition was comparatively comfortable, but the uterus continued to enlarge after my first visit.

During the latter part of April, fetal movements were felt in the uterus, the outlines of which were well defined, and occupied a central position. This had no effect on the tumor other than to slightly obscure the outlines along its uterine border. Intra-uterine pregnancy was now a fixed fact, but the original tumor remained a matter of doubt. However, I was now inclined to change my diagnosis from extra-uterine pregnancy to intra-uterine pregnancy, complicated with ovarian tumor. I then anxiously awaited the period of the patient's accouchement.

On the morning of August 5th, I was summoned to attend the patient, and found her in the first stage of labor, the os dilated but little and dilating slowly, with breech presentation, the uterine contractions being rather feeble. I now availed myself of the opportunity to inspect the abdomen during the contractions of the uterus, and the following is what occurred: Beginning with each contraction, there appeared a deep sulcus or groove along the line of contact of the uterine and iliac tumors, sufficient to receive a body as large as the index finger, the sulcus disappearing on the cessation of the contraction.

At four o'clock P. M. dilatation was complete, membranes ruptured, and a moderate amount of liquor amnii discharged. The second stage of labor was protracted, owing partly to my inability to deliver the head promptly. At seven P. M. the patient was delivered of a dead female child, weighing about seven pounds, and well developed.

I had anticipated post partum hemorrhage. A short time before the second stage of labor was completed I administered ergot, and subsequently employed Créde's method for the separation and expulsion of the placenta; but in that I was

disappointed. A rather free hemorrhage admonished me to remove the placenta immediately, which I did.

The uterine contractions during the third stage of labor were feeble, and on introducing my hand within the uterus I discovered that the placenta was attached to the right lateral wall and fundus of the uterus, exactly at that point of the uterus in contact with the tumor. The placenta was with some difficulty detached and removed, after which considerable hemorrhage occurred from the want of sufficient uterine contractions. Hemorrhage continued to occur at intervals for the next two weeks, and was with difficulty controlled, though not alarming as to quantity at any time after the first twenty-four hours. Nevertheless, by its continuance, it rendered the patient's condition very critical, producing an extreme degree of anemia and debility. The tumor remained much the same after the uterus was emptied, with the exception that it became more prominent and its outlines better defined.

Two weeks after labor septicæmia set in, which defied all treatment, notwithstanding the most energetic measures were resorted to, both local and constitutional. After four weeks' treatment, with no improvement and the patient's condition becoming daily more hopeless, with dissolution likely to occur at any hour, she became disgusted with treatment, disheartened with no prospect of recovery, she became reconciled to her fate, and refused to continue further treatment.

In this condition she remained some three weeks, gradually sinking lower and lower. The odor about her bed and person, which had hitherto been controlled during treatment by disinfectant solutions, now became so offensive that her friends could scarcely remain near her.

About the 15th of October, something was discovered protruding from the vulva. A physician was called in, one previously in consultation in the case, who removed a part of what proved to be the remains of a fetus, supposed to be near the fifth month of gestation, and in an advanced stage of decomposition; nevertheless, the placenta and cord were plainly discernible. It was also discovered that this product

gained egress through the os uteri. Portions of this product continued to be discharged from time to time, together with pus and débris. The tumor undergoing marked diminution from the first escape of the putrid mass, and the general health and condition of the patient improving in a corresponding degree, the successful effort of nature to get rid of the offending mass, coupled with judicious treatment, enabled the patient to take a new lease on life, and four months from this time she was in the enjoyment of vigorous and robust health, with not a vestige of her former trouble remaining.

GREENUP, KY.

DOUBLE FETATION.

BY S. M. LINTON, M. D.

On the evening of May 23, 1869, I was requested to visit Mrs. N., aged nineteen years, a primipara. I was informed by her mother that "they supposed Mrs. N. to be pregnant since the latter part of January; that she commenced wasting in the morning, and was now flooding fearfully." I found the patient propped up in bed, and well nigh exsanguine. I immediately removed the pillows from under her head and shoulders, and ordered the foot of the bed raised some ten or twelve inches. This done I made a digital examination, and found the mouth of the womb dilated to the size of a silver half dollar, and readily detected a central placental presentation. Her condition was such that I deemed it advisable to use the tampon, which was thoroughly applied, entirely arresting further drainage. This accomplished I took a seat to await results, remaining by her bedside until the next morning; and as there was neither hemorrhage nor pain, I enjoined perfect quiet, and left with instructions to be summoned if necessary. I did not see her again until six o'clock in the

evening, when I found her in active labor pains, and soon tampon, placenta and fetus were expelled. I also removed from the vagina a well compressed coagulum, the size of a hen's egg, being the entire amount of hemorrhage occurring since the application of the tampon. From this on, my patient made a rapid recovery, and the case faded from my mind as one of placenta prævia with fortunate termination.

On the thirtieth day of October following, I was again summoned to visit Mrs. N. This time I found her in active labor, and within two hours from the time of my arrival she was delivered of a live female child, weighing nine pounds and eight ounces. The child is now a bright little school-girl of nine summers, her birth taking place just five months and six days after the unfortunate expulsion of her twin sister.

Placenta prævia, with excessive flooding, use of tampon, expulsion of the dead and retention of the living twin to full term, are points of professional interest.

COLUMBUS, IND.

Reviews.

The Science and Art of Surgery—Being a Treatise on Surgical Injuries, Diseases and Operations, By JOHN ERIC ERICHSEN, F. R. S., F. R. C. S. Revised by the author from the seventh and enlarged English edition. Illustrated with eight hundred and sixty-two engravings on wood. Two volumes. Philadelphia: Henry C. Lea, 1878.

The announcement of a new edition of Erichsen's Surgery will be received with great pleasure by the profession. Its coming will undoubtedly be considered the great surgical event of the year. The work has grown no less in size than in favor since its debut twenty years back. What was then embraced in a single modest volume, seeking favor of English eyes alone, demands now two large octavos of nearly a thousand pages each, and the treatise is accepted as a standard authority by the world of surgery. Many rivals have, from time to time, entered the lists against it, but it has maintained its reputation against all comers. Even the ambitious volumes of Holmes, which contained the efforts of various masters, failed in giving a competitor superior to that of the great pupil and follower of the illustrious Liston.

It is a matter of much pride to Americans that the only work which, it may be safely said, has found favor in comparison with that of Mr. Erichsen, is the massive work of our own countryman, Gross.

We can recall few instances where either medical or surgical authors have continued to have a hold upon the profession like that of Mr. Erichsen. Paget, in Pathology, is classical, indeed; but he does not give the last word. Watson's Physic, though it is as it should be in every modern library, began to be supplanted twenty years ago.

Many circumstances, no doubt, have contributed to the exceptional fortune of Mr. Erichsen. Among those which are most apparent we may mention that he begun life very early as an author, and showed at the outset the powers of a master. Himself one of the busiest of the actors in the theater whose exploits he records, with a mind singularly judicial and appreciative of the labors of others; with an industry untiring, and with powers of expression unsurpassed, he has never allowed his work to grow old—has never failed, at proper intervals, to record the advance of his art. The seventh edition of his work follows in quick succession on the sixth; but surgery has been in such an excited condition of late that a few years may bring with them much that is to be renewed. Fresh exploits are to be recorded, and old methods and theories are to be examined by better analysis.

The surgical records of our unhappy conflict, compiled by the indefatigable and judicious men in the Surgeon-General's office, constituted, indeed, a master-piece in the military department of our art; but great wars have convulsed Europe since then, and yielded there at least additional experience. And though such experience may not apparently figure largely in a work not intended especially for military surgeons, lessons furnished in hygienic and operative fields could not but have had a powerful influence upon our art as applicable to civil needs.

The theaters of civil surgery have, too, been busy. Operative surgery has been pushed to such an extent that, in the words of Mr. Erichsen, it has apparently reached a finality. Specialism, which has grown to be a separate and powerful estate, has added the cunning of its concentrated skill to certain departments of surgery.

New conditions have been afforded the knife and its exploits. For twenty-five years it was its greatest triumph that it might cut without pain. Then arose the question whether the division of tissue need be followed by pus and its waste. Quickly following this, it was demonstrated that in many instances blood need not flow from its use.

Nor was pathological surgery ever more fairly up, and the claims of surgery to rank as the acme of medical science. Day by day the vigorous analysis of the microscope and the test-tube have been pushed, and the results obtained compared with bedside experience to advance our knowledge of the cause and cure of surgical disease. Surgery, in fine, has caught the full fervor of the times, and no branch of human knowledge has more rigorously demanded a searching review of the whole ground upon which it stands.

Mr. Erichsen brings to the work of his seventh edition the ardor of his youth, and the philosophy of his mature years. No words can better express the spirit with which he has entered it than his own.

"A teacher of surgery," says he, "who seeks to give a true and impartial view of the subject of his tuition, is placed in much the same position as a judge who is summing up a great cause."

And no one who reads his present pages can deny that he has kept his model before him. He has, in the first place, rid himself of the bias of any views he has hitherto held in surgery, and pruned as well as added to his work. As he says again in his preface:

"He must endeavor to divest himself of the trammels of the schools—to free himself alike from the partisanship of individual bias and the antagonism of professional prejudice. He must lay down clearly the broad general principles on which the case rests; detail its facts in an orderly and succinct manner, draw those deductions which legitimately flow therefrom, and guide his pupils to arrive at just conclusions by the light of his own more matured and extended experience."

The first change in the old text is made in the second page of the new edition, where the author introduces some of his remarks made a few years since at University College, concerning the "finality" of operative surgery, about which so much discussion was had at the time. Under the head of "Conditions influencing the success of operations," he gives the "four classes of primary surgical urgency," which we quote as an example of the author's comprehensive style:

"Patients with a high temperature should never be operated on

except for the relief of that very condition which occasions the elevation of temperature, such as the accumulation of pus, or in one of those four great surgical emergencies that demand, under all and every circumstance, immediate operation, viz., first, dangerous hemorrhage; second, impending asphyxia; third, strangulated hernia; fourth, over-distended bladder."

The remarks on hygiene have been much extended, and Tyndall's and Pasteur's experiences have been noted. Under "Anæsthetics," Ether receives more attention. In the "Performance of an Operation," Esmarch's method is described and favorably commented on. Although the author here notices Langenbeck's remarks upon symptoms of paralysis following the use of the elastic bandage, he fails to note the application of electricity, which has served so well to stop the oozing of blood resulting from this cause.

The chapters on Amputations have been rewritten, and other methods besides that by flaps have been considered. The woodcuts in this chapter are particularly bold and faithful.

The chapters on the inflammatory process have received some attention—more in the rearrangement of the type than in additional text. In the consideration of wounds much valuable matter is added. The question of bacteria is well discussed. And concerning Mr. Lister's theory and practice, to which Mr. Erichsen gives a partial adherence, under the head of "Antiseptic Treatment," he gives the following wise conclusions:

"The introduction of the 'antiseptic treatment' being cotemporaneous with the general adoption of improved hospital hygiene, the patients subjected to this method necessarily participate in the advantages that flow from exposure to sanitary conditions that have been so much altered for the better. Hence it is not reasonable or just to ascribe a diminution of the amount of septic disease in a hospital in which the 'antiseptic method' is employed, to that alone, and to the exclusion of all other causes.' Either hygiene is of no value in surgical cases, or some and probably no inconsiderable share in the improved results must in justice be assigned to the generally ameliorated sanitary conditions. The only compari-

son that can justly or scientifically be instituted, is between one set of patients treated antiseptically, with another of a similar kind subjected contemporaneously to other methods of treatment. . . . It is manifestly unscientific to compare the results of modern with those of older methods of surgical practice, even in the same institutions, where the attendant conditions, independent of mere treatment, are dissimilar; and it is equally incorrect and unjust to refer all improvements in results to one only of the many improved conditions to which the patient is now subjected."

The chapters on Fractures have been somewhat remodeled, not to the extent, however, which we would have thought, in view of the advances made in the management of these injuries. The profession is indebted to Mr. Erichsen, perhaps, more than to any other man, for sound views upon the pathology of fractures. It was by his teachings that the fallacy of active extension and counter-extension was exposed, and his example, along with the utterances of Billroth, gave the chief impulse to the spread of plastic dressings. We venture to think that our author would have improved upon his present remarks on this subject had he omitted the detailed account he gives of the "starch dressing," and substituted for it a fuller description of the newer and better methods of applying the paris-plaster, and made mention of the several other pastes, as that of flour and eggs, and glue and zinc, for instance, both of which, in our opinion, are notably superior to that of starch. The latter indeed may, we think, be fairly considered as obsolete. His caution concerning bandages under splints and over the seat of fractures, were not as clear as they might have been in previous editions, and have not been made more so in this. We further venture the remark that he pays too much respect to sundry methods of treating the same fracture: simplification and not amplification would have been the proper step.

But interesting as it would be to note the many other changes contained in the present volume, the limits of our space have been reached. Besides, the day has long since gone by when Mr. Erichsen needed to be endorsed. We trust that we have called attention to the freshness of the

work, if to nothing else. What we have said in our author's praise we could not keep back.

The seventh edition is before the world as the last word of surgical science. There may be monographs which excel it upon certain points, but as a conspectus upon surgical principles and practice it is unrivaled. It will well reward practitioners to read it, for it has been a peculiar province of Mr. Erichsen to demonstrate the absolute inter-dependence of medical and surgical science. We need scarcely add, in conclusion, that we heartily commend the work to students that they may be grounded in a sound faith, and to practitioners as an invaluable guide at the bedside.

The liberality of author and publisher has been lavished upon the work, and its mechanical execution is admirable.

Public Hygiene in America—Being the Centennial Discourse delivered before the International Medical Congress, at Philadelphia, September, 1876. By HENRY I. BOWDITCH, M. D., with extracts from correspondence from the various States. Together with a Digest of American Sanitary Law, by HENRY G. PICKERING, Esq. Boston: Little, Brown and Co. 1877. 8vo., 498 pp.

The centennial address of Dr. Bowditch, as delivered to the International Medical Congress, in September, 1876, has already been published and distributed by the authority of the Congress. This book is an extension of the address, with a multiple appendix, containing much of the correspondence and other papers and facts on which the author relied for the substantial foundation of his discourse.

The first part of Dr. B.'s address is devoted to the history of American medical ideas during the century ending with the year of his speaking. He divides this period into three distinct epochs:—the first from 1776 to 1832, in which the medical doctrines taught by Broussais in Europe, and Rush in America, were dominant. These doctrines may be fairly

limned by quoting the expressions of Dr. Rush, when he said to his class, "turn nature out of doors, gentlemen, and appeal to art;" and "Cullen's *vis medicatrix nature* is a mere delusion;" and "the time must and will come when the general use of calomel, jalap, and the lancet, shall be considered among the most essential articles of the knowledge and the rights of man."

The second epoch, from 1832 to 1869, "commences the rise of more exact and scientific methods of study, with most minute observation of facts, and subsequent analysis of such facts, without the least regard to preconceived opinions." "Louis of France, Forbes of England, Bigelow and Bartlett of America, will be seen as the eminent exponents of this period."

The third epoch began in 1869, and our author projects it into the future without prevision of its limit, and he ascribes to it a nobleness and a beneficence transcending everything in the past. Prevention of disease is the paramount purpose of the present period, as the cure of disease was almost the only thought of the past; and our author, as was his appointed duty, gives the point of his discussion to State Preventive Medicine, and dates this epoch from 1869, because in that year Massachusetts created a State Board of Health, the first of its kind in America. He names Lemuel Shattuck of America, and Edwin Chadwick of England, as the pioneers in this highest development of medical science; but he mentions many others as invaluable coadjutors in the noble work. This first part of Dr. Bowditch's address is a concise and terse piece of composition.

On the first of January, 1876, Dr. B., as a preliminary step, wrote a series of questions—principals and subsidiaries—numbering forty-seven, to two hundred and sixty-three medical men, living in all the states and territories of this Union, and from them received one hundred and seventy-nine replies; and the second part of the address is an analysis of this correspondence. These queries cover a call for information concerning the past and present condition of state medicine, with

an invitation by Dr. B. to his correspondent to forecast the future in this behalf in their respective localities. The analysis of the information thus obtained is quite instructive; *albeit*, it is far from flattering in regard to the extent of the cultivation of our people in this behalf. Nevertheless, there is room for congratulating ourselves in the fact that we have begun our new national century with a bright awakening to the importance of the duties and the privileges of our situation.

In closing his summary, Dr. Bowditch portrays his sense of the grandeur of his theme and the magnitude of the service in prospect for us in the following forcible paragraph:

"We stand now at the very dawn of the grandest epoch yet seen in the progress of medicine. While philosophically, accurately, and with the most minute skill studying, by means of physiology, pathological anatomy, chemistry, the microscope, and above all by careful clinical observation, the natural history of disease and the effects of remedies, our art at the present time looks still higher, viz., to the *prevention of* as well as to the *cure of* disease. And this is to be done by sanitary organizations throughout each state; the nation, the laity, and the profession heartily joining hands in this most noble cause."

About one-fourth of the volume is occupied by the address; the remainder is taken up with the appendix in eight parts:

Appendix I is the twenty principal and seventeen subsidiary questions of the circular of inquiry, and the names of the parties to whom it was addressed.

II. Is constituted of the answers to the queries from all parts of the states and territories, many of them from the most noted students of state medicine in the profession. The answers are arranged by states, and embrace every phase of the many-branching subject.

III. Is public hygiene in the universities and colleges.

IV. Is the digest of American sanitary law, by H. G. Pickering, attorney-at-law. This treats first of the United States, and then of each state in alphabetical order, and will be found

of great utility to those who are seeking to inaugurate state medicine in the thirty-eight states and territories where it does not now exist, or are striving to advance it in the ten where it has already been started.

V. Is entitled Louis and Pierson on Dr. James Jackson, Jr.

VI. Is the law of soil moisture, being the author's investigation and report on soil moisture as a cause of consumption.

VII. Is the Massachusetts law on noxious and offensive trades.

VIII. Is a brief statement of European sanitary work.

Various salient points in the volume present tempting opportunities for special comment, but the effort made in this notice has been to give such a chart of the book that the reader may know enough about it to decide whether it is one he desires to have in his library; and hence the temptation to comment has been resisted lest the notice become too long. It is a work in which the general practitioner will meet with much to interest him; and it will be peculiarly valuable to the student of general sanitary measures, state boards of health, and preventive medicine.

J. F. H.

Contributions to the History of Medical Education and Medical Institutions in the United States of America, 1776-1876. Special Report. Prepared for the United States Bureau of Education, by N. S. DAVIS, A. M., M. D. Washington: Government Printing Office. 1877. 8vo., 60 pp.

In 1874, the United States Bureau of Education published a history of the progress of medical education prior to the Revolution, prepared by Dr. J. M. Toner, of Washington, D. C.; and at his request Dr. N. S. Davis, of Chicago, was invited to write a like history for the century ending with the year 1876, to constitute a part of the material to be furnished by the bureau to the Centennial Exhibition of that year. Dr. Davis accepted the invitation, and this pamphlet is the product of his labor.

Dr. Davis probably has no superior for a work of this kind; and in this instance he began with an account of the condition of the colonies in 1776, containing about three million inhabitants, of whom something over three thousand were physicians, with two medical colleges, two organized medical societies, and one permanent general hospital. Following the development of medical education from this narrow base, our author gives, with some minuteness, the establishment and organization of the medical schools up to 1876, when there were sixty-four in active operation. In 1810, the whole number of medical students was six hundred and ten, the graduates for that year about one hundred; in 1876, the number of students was six thousand six hundred and fifty, and the graduates twenty-two hundred.

The *brochure* is divided into two parts. The first treats of teaching as above; the second part, with equal care and attention to details, gives the history of the more important medical society organizations.

Parties desirous of meeting with facts covered by the caption of this book, will find them here presented with the perspicacity and force peculiar to its author. The sixty large octavo pages are loaded with much wheat and but little chaff.

J. F. H.

The Action of Medicines. By ISAAC OTT, A. M., M. D., formerly Demonstrator of Experimental Physiology, University of Pennsylvania. With twenty-two Illustrations. Philadelphia: Lindsay and Blakiston. 1878. 1 vol., 8vo., 168 pp.

The object of this little volume appears to be "to give those engaged in teaching and experimenting a text-book that will give some idea how to investigate the action of drugs." Those, then, who purchase it expecting to get a treatise on the action of medicines will be disappointed, and it is rather unfortunate that the author should have given this title to his book. The volume contains four chapters.

Chapter I. How to study the physiological action of medicines. This is full of practical matter that can not fail to be interesting to any one engaged in this difficult path of medical investigation, and the directions given as to apparatus and manipulations must prove most valuable.

Chapter II gives information and directions how to study the action of medicines on the nervous system.

Chapter III deals with the methods of investigating the action of medicine on the circulatory apparatus, and both these chapters also contain many physiological facts essential to the perfect understanding of the action of medicines. This occupies one hundred pages of the book, or nearly two-thirds.

The remaining sixty pages deal with the action of individual medicines upon man and the lower animals. It is very imperfect, giving, in most instances, a most meager synopsis of facts, which must be entirely inadequate to meet the wants of those for whom the book is ostensibly prepared. Looseness, not to say slovenliness of style, is particularly objectionable in scientific works; and its pages are here and there marred by such defects, as when the author, speaking of frogs, says, "their apparatuses are able to survive for some time the destruction of each other." If the different "apparatuses" of the frog are ever engaged in "the destruction of each other," it is at all events pleasant to know that they are able to survive the massacre for some time. Fortunately the puzzle is solved in the context. Many important remedial agents are not even mentioned by name.

The book, though not devoid of merit, is hardly practical enough for this side of the Atlantic. It is neat and attractive in appearance.

J. A. O.

Guy's Hospital Reports. Edited by H. G. HOWSE, M. S., and FREDERICK TAYLOR, M. D. London: J. and A. Churchill. Third Series. Vol. XXII, pp. 527. 1877.

The contents of this volume are so rich and varied that in the short space that can be given to it an extensive review is

impossible. Among the most important articles are those on Cerebritis, Hysteria and Bulbar Paralysis, as illustrative of arrest of the function of the cerebro-spinal centers, by Samuel Wilks, M. D.; some relations of Mental Disease to Inheritance, by George H. Savage, M. D.; Empyema and its Treatment, by James Goodhart, M. D.; some cases illustrative of the diagnoses of diseases of the Cœcum, by S. O. Habershon, M. D.; on the Nervous System in Diabetes, by Fred. Taylor, M. D., and James F. Goodhart, M. D., etc. These papers all deserve perusal, and some of them are exceedingly valuable.

The surgical part is chiefly made up of a report on Tumors of Bone, with illustrations, Cyst in Shaft of Tibia, and Osteitis Deformans.

J. A. O.

Practical Gynecology—A Hand Book of Diseases of Women. By HEYWOOD SMITH, M. A., M. D., etc. Philadelphia: Lindsay and Blakiston.

Dr. Heywood Smith needs no introduction to the readers of the American Practitioner. His very interesting article in this journal, August, 1877, has made his name known, by all who did not know him before, as one of the representative gynecologists of London.

Dr. Smith has brought within a duodecimo of about two two hundred pages, as well as any one can, the chief practical knowledge of diseases of women. As a traveler, before visiting a new country, gets from a guide-book general directions as to his journey, and a sort of outline of the region he is to explore, so the student will find in this volume a hand-book to guide him in his studies. The physician, too, will find it useful for the revival of past knowledge—a sort of net to bring up from the sea of his memory forgotten facts and truths; and he will also realize its value in suggesting most of the new things that have sprung up in gynecological practice within the last few years.

Clinic of the Month.

THE FRACTURED FEMUR—DOES ITS LONGITUDE VARY WITH ITS LATITUDE?—This practical article, by Dr. Cowling, we extract from the Louisville Medical News of March 16th :

A number of lectures delivered by Prof. Frank Hamilton, during the winter past, on fractures of the long bones, have been published from time to time in several of our contemporaries. They must, of course, have attracted considerable attention as coming from one whose name is so intimately connected with the literature of fractures in this country. We wish we could think that the republication of his views would be productive of as general good. We use advisedly the word republication, for those who read Prof. Hamilton's last lectures must have been struck with the fact that in spite of slight symptoms he exhibited at one time of modifying the views of his earlier life, under the influence of changes made in the department of fractures, he returns wholly to his former opinions. Nay, more than that—as if to make amends for his apparent backsliding, he returns more deeply dyed than ever in the tenets of his ancient faith.

The peculiarities of Prof. Hamilton's ideas in regard to fractures may be stated to be the activity and multiplicity of the measures he deems necessary for their cure. We have neither space nor inclination to review here the details of his treatment of fractures in the several localities ; but we do consider that the stand he has taken against the use of the plastic apparatus, in the treatment of fractures of the femur, ought not to pass unchallenged. Prof. Hamilton speaks with no uncertain sound against it. For two years he used it in alternate cases in practice, and he unqualifiedly condemns it. In his own hands, and in the hands of others, it was productive

of shortened and crooked limbs, excoriations, discomfort, and heart-breaking woes innumerable; and he is happy to state that its reign in New York is fast drawing to a close. If extension was tried by the perineum, says Prof. Hamilton, there was ulceration and slough; if the contour of the great muscle of the thigh was relied upon to give the necessary supports for this, the development of most thighs was not great enough to furnish the points; and in fractures of the femur in children, from the delicacy of their skin, the abundance of fat, the tendency to excoriation from the urine saturating the dressing, the short, fat limbs, and the restlessness of the subject, the acme of the difficulty is reached. Indeed, says Prof. Hamilton, the difficulty attending the treatment of these cases is so great that surgeons have generally dodged any separate consideration of it. "The books do not say much about it; for their authors have found it, no doubt, a very disagreeable subject, and most of them do not make any distinction between fracture of the femur in the child and in the adult." We may say, before leaving this part of the subject, that Prof. Hamilton still confines his patients with fractured femur in bed, with weight and pulley and splint and bandage for adults, and with the frame apparatus for children.

Now it sounds very strange to ears in this latitude to hear these last words from a great surgical center like New York. Of course, we would not think of putting individual experience against one who has the wards of such a great hospital at his command as has Prof. Hamilton; but surely the general experience in a city containing one hundred and forty thousand inhabitants, a long-established center of medical teaching, ought in thirteen years to have gathered something which can stand even against the greatest. It was about thirteen years ago that the plastic apparatus was first used in Louisville, to any very great extent at least, for fractures of the femur. We believe that it was principally by the example and teachings of Prof. D. W. Yandell that its use in this direction was spread hereabout. Starched apparatus had been previously used in fractures of the leg-bones, but the

long splint and perineal band were still in vogue with the thigh. Prof. Yandell had, with other surgeons in the Confederate army, witnessed its good effects in fractures of the femur, and commenced this practice of dressing such injuries in Louisville immediately after his return from the war. The first dressings used were the old cumbrous starched bandage, with paste-board splints to help stiffen them; usually requiring seventy-two hours to become dry. A few years later Mr. Tuffnell's admirable paste of flour and whites of eggs was substituted, and is used to this day in a number of cases, especially after union has taken place. In 1870 Dr. Cowling introduced manilla paper as a material to stiffen the apparatus. With the flour and eggs it dries in twelve hours or so, and makes one of the most beautiful of all models—smooth, light and durable. It is tedious to apply, however, and gave way, along with every other material, when, in 1871, the plaster-of-paris bandage came into use in Louisville. The plaster-of-paris bandage has not only held its own since that year in this city, but has steadily grown in the confidence of the profession, and its field of application has widened day by day. A long splint, a weight and pulley, an inclined plane, an anterior splint, a suspensory apparatus, are curiosities in this city. They were shown at the schools for a time among the appliances for treatment, exhibited later as vestiges of the past, but for five years they have slumbered undisturbed with the fathers.

The plastic apparatus is used for fractures of the foot-bones, of the leg-bones, of the patella and thigh-bone, in shaft and neck. (It constitutes, besides, the general treatment of joint-diseases, whether at ankle, knee, or hip.) It is put on as soon as it can be got on; it is disturbed as little as possible after it is on. Now with this general practice here, and with the practice of hundreds of practitioners in the South and West, who have carried away from the schools of Louisville abiding faith in the method, it strikes us it is about time for us to witness or to hear from a number of those fearful results recorded by Prof. Hamilton, if they follow in such numbers; and yet they do not appear. Of course perfect results are

not obtained in every single instance, but positively ill results are rare, and they can either be traced to the improper application of the apparatus or to causes which would have operated, no matter what treatment might have been substituted. A stiff joint in fracture through the joint, an excessively shortened leg in a compound and excessively oblique fracture, or a crooked limb when plain rules for the support of the upper fragment of the fractured bone have been neglected, has resulted in a very few instances; but where one man has limped after the use of the plastic apparatus a hundred have walked without doing so, and crushed and mangled limbs in numbers have not only escaped the knife, but have been almost perfectly restored. Have the limbs been shortened after thigh-fracture? Probably they have, as a rule, a half inch or so; but the gait does not show it, and most careful measurement has demonstrated, in some instances, that even in fracture of the upper third of the femur in adults positively no shortening has occurred.

Some one may ask, how is the necessary extension kept up with the plastic apparatus? It is not kept up at all—that idea was exploded here half a dozen years ago, when the last extending band was laid aside. The bones being put in apposition, the plastic apparatus removes the causes which produce the shortening by its incomparable fixation somewhat, but probably most by the soothing influence of its equable warmth and gentle pressure, substituting, we imagine, persuasion for force. But the most curious thing about the use of the plastic apparatus in Louisville is, perhaps, that if it has any special field it is in the treatment of the fractured femur in children. On account of their tender skin, fat limbs, their tendency to irritation from discharges, their restlessness, etc., nothing so admirably suits them as the plaster-of-paris bandage. Absolutely free from pain after its application, causing often a doubt that fracture exists, playing with their toys in a few hours, easily handled and cleaned, out of bed in a day or so, crawling about, tumbling about, walking about on their crutches if they are old enough to walk at all, and coming out of the

bandages at the end of four or five weeks with sound and straight and unshortened limbs, with scarcely a redness thereon.

How are we to explain these widely different results in New York and Louisville? Is it not barely possible that we are not looking at the same shield at all—that the plastic apparatus of one place is not the plastic apparatus of the other? We do not know what method Prof. Hamilton used in his application of plaster-of-paris. We hope he did not—and in fact do not believe he did—put the bandage next to the skin. That were a stone coffin, indeed; and, if we remember rightly, he called it so. The method used here is not the Bavarian method, with the blanket and hinge. It may be a very good method; we know nothing about it practically, but it is not desired here; for when one of our surgeons puts up the limb he puts it up to stay up, in sublime faith of its coming out all right in the end, or else that it will give evidence by the discomfort it occasions that something is going wrong which must be remedied.

If Prof. Hamilton's dressers adjusted the fractured femurs early, under an anæsthetic; if they use smooth and ample layers of unbroken cotton-batting next to the limb, buttock, and back; if they were ordinarily skillful bandagers, and confined the cotton equably and with moderate firmness with dry rollers; if they carried a spica over the hip even for fracture just above the knee, and to make sure that they did carry the spica above the hip they brought it six inches above the crest of the ilium; if on the base thus constructed they placed two or three layers of plaster bandages made of slazy muslin (cheese-cloth) not longer than three yards each, into which dry plaster (best dental) had been thoroughly rubbed, and the bandages thus prepared were dipped into water and wetted through before application; if these bandages were smoothly applied, and especially thoroughly applied over the spica, which can be done without encircling the abdomen; if they removed any redundancy about the perineum so that the bandage might not touch it, and looked well to the cotton in

that locality, covering it with oil-silk if they cared to do so; if in the application of the plaster bandages the foot was kept rigidly at a right angle, and the knee straight or slightly flexed; if the case was looked to twice during the first twenty-four hours, and half a dozen times during the subsequent six weeks; then, if affairs turned as badly as Prof. Hamilton said, we must believe that the New York thigh and the Kentucky thigh have been evolved from different progenitors.

The fact is, we do not know what to think about the matter. We can hardly believe that Prof. Hamilton does not know how to apply the dressing, and it is hard to think that bone nature changes with latitudes, however strong our faith in the blue-grass beef and the bourbon. We are bothered, too, by conflicting statements in regard to the matter. Prof. Hamilton says his colleagues have pretty well abandoned the plastic dressings. He may think so, but one must go away from home to learn the news. Does not Prof. Van Buren still believe in it? is it possible that Dr. Sayre has weakened in his faith concerning it? and is its stout defender, Dr. St. John, ready to retract what he has said about it? We imagine Prof. Hamilton has been misinformed. Philadelphia would, of course, rather give up her machine-shops than the bewildering mechanism of her fracture wards, but New York is more progressive.

It would be foolish, of course, to declare that one method in the treatment of fractures gets all the good results, and other methods get all the bad ones. The fact is that under the best directed treatment by any method fracture-cases will sometimes result badly; and he who is swift to condemn a brother surgeon for this lacks as much in intelligence as he does in charity. The surgeon is most apt to get good results by the application of methods in which he has most facility. Early impressions are difficult to remove, and skill in new methods hard to acquire; hence it is that we deem it important that the plastic method of dressing fractures of the lower extremities should be thoroughly put before every student at the outset of his career.

We can not but think that the plastic dressings are among the greatest of the blessings of modern surgery, both to patient and to surgeon. They fill the whole measure of the law. They heal as quickly as the nature of the case will admit, as safely as by any method yet devised, and pleasant to a degree beyond the power of any other plan—past, present, and we may safely say future—to achieve. And if our words in their defense have been many, they are not wasted if they do but inspire one wavering brother to test their merits.

TEREBENE AS A DRESSING FOR WOUNDS.—Dr. T. G. Nasmyth, M. B., C. M., *Edinburgh Medical Journal* for March, gives this note as to the use of the above remedy:

The first case that I saw treated by this, was a gunshot wound of the hand, where several fingers were blown off and the hand much lacerated, and, from the nature of the injury, irregular and ragged flaps were left where the destroyed fingers had been removed. Terebene, in the proportion of one part to six of olive oil, was used from the first, there never was any putrefactive odor from the wound, very little sloughing took place, and the wound granulated kindly without any bad symptoms occurring. Its use was tested in another case, one of excision of hip-joint, where the acetabulum was diseased as well as the head of the femur. Terebene was applied on lint to the surface of the wound, and during the first day or two after the operation into the cavity of the wound; in this case there never was any bad odor either, and the large wound filled up very rapidly. Terebene seems to stimulate granulations more than carbolic applications. A wound of the scalp in a drunkard, who fell from a two-story house, healed without the slightest bad effect occurring, and in several other scalp wounds a like result followed. A case of gangrene, occurring in an amputation below the knee, and delirium tremens also complicating the case, tried terebene as a deodorizer thoroughly, and it answered satisfactorily. The smell from the gangrenous stump was kept down, the gangrene did not extend, and very little sloughing occurred. The patient recovered. As an ap-

plication to ulcers where there is a great amount of discharge, it is a good application, it diminishes the amount of discharge, and prevents the bad odor even in the most fetid ulcer. As an application to burns, it acts just as well as carron or carbolic oil, and it certainly is a more agreeable substance to use than the former. Although the number of cases in which I have seen it used is not very large, still they were cases which tried its value thoroughly, and I have found it very useful. In cases where antiseptics can not be found—and these do occur especially in the country—terebene will be found a very useful application.

ENURESIS NOCTURNA.—Dr. Kelp, in speaking of this affection in the *Memorabilien*, February 20, 1878, says:

In this troublesome affliction, which generally occurs in young persons, but sometimes in the adult, but usually does not remain longer than through childhood, various remedies have been recommended and presented in practice. I have for a long time paid attention to the endermic use of nitrate of strychnia, and in some recent severe cases of enuresis obtained entire satisfaction. In one case I injected over the sacrum a solution of nitrate of strychnia, containing six centigrammes of the strychnia in seven and a half grammes of water, a half syringe-ful. In treating a case the injection is repeated so soon as the enuresis appears again. Usually it ceases after the *first* injection, but may appear again in a short time, until from repeated injections it entirely disappears. In December, 1877, I treated in this manner a young girl eighteen years old, who had suffered from scarlatina, who, since her long illness, for a month had suffered from nocturnal enuresis, which occurred every night, in spite of every precaution. Refraining from drinking during the evening, emptying of the bladder by getting up in the night, could not obviate the difficulty. However, after the administration of the first injection of the solution of strychnia, the enuresis ceased, but returned again after several days, but after repeating the hypodermic it has never, up to this time, reappeared. The patient is a strong healthy girl, and had, *before* her sickness, never suffered from enuresis.

Notes and Queries.

THREE ABLE COMMENCEMENT ADDRESSES.—We have been especially interested in three addresses recently delivered at medical college commencements. The first of these, the only one which we had the good fortune to hear, was by Dr. George Sutton, President of the Board of Trustees of the College of Physicians and Surgeons of Indiana. Dr. Sutton is one of the strong pillars of the profession in Indiana, a man who, in the midst of a laborious practice, has been not only a diligent medical student and an active member of medical societies, but has also found time to cultivate his love for general literature, and a study of some of those sciences more or less nearly related to medicine. His address was full of practical wisdom and judicious suggestions. We hope next month to publish it.

The other two addresses to which the title of this note refers, are by Professor William Goodell, of the University of Pennsylvania, and Professor J. M. Bodine, of the University of Louisville.

Dr. Goodell is one of the masters of English composition. His style is singularly terse, clear and strong, while his knowledge of ancient and modern literature, and his habits of close observation, furnish him with not only apt illustrations but brilliant ornaments.

The address is chiefly hortatory in character, and will prove of countless value to every young physician who heeds its wise advice.

From a writer so invariably chaste, accurate and elegant, we pause at "jaw-breaking" names, and stumble at "level best."

Dr. Goodell concludes his admirable address thus: "When the Breton sailor puts to sea, his prayer is, 'Keep me, my God, my boat is so small, and thy ocean is so big.'" Dr. Bodine enters into the heart of his subject with this passage: "The Breton mariner, when he puts to sea, prays, 'Keep me, my God, my boat is so small and the ocean so wide.'" We wonder how this pious Breton happened to sail into the field of vision of two gentlemen so far apart, at nearly the same time! Was he called into service in any other valedictory addresses? The story is so brief and so simple, and so striking, that we shall expect to hear it again.

Meantime Dr. Bodine has the right of priority in its use, his quotation having been made two weeks in advance of Dr. Goodell's.

Dr. Bodine's address has been beautifully printed and issued in pamphlet form by J. P. Morton & Co. Its subject is expressed in the question, "What am I?" and is an eloquent effort to maintain man's nobility in origin, in character, in destiny, as a living soul. It is a noble protest against the mere flesh and blood theory of human beings, and also makes a partial answer to that question which so often presents itself to the physician especially, Why is there suffering, physical pain, in this world? We congratulate our friend upon having prepared an address so able, interesting and useful.

A STUPID RECLAMATION.—We publish the following note, which is found in the *Lancet*, March 9th:

"VOMITING IN PREGNANCY.—*Sir*: I am somewhat surprised to see in your issue of to-day a paper by Dr. Jones, of Chicago, with an addendum by Dr. Marion Sims, in which the theory that the excessive vomiting occasionally attendant on pregnancy is due to uterine irritation is started as a novelty, and the suggestion made that it should be treated by the application of nitrate of silver to the cervix. It is, perhaps, not surprising that an American practitioner should be ignorant of the fact that the view was advocated many years ago by Henry Bennet, and the same treatment recommended. It is, however, astonishing that so accomplished a physi-

cian as Marion Sims should introduce so old a plan to the profession as a novelty discovered by his countryman. I turn to our latest systematic work on Midwifery, and find what I state amply corroborated. Permit me to make an extract in proof: 'Inasmuch as the vomiting unquestionably has its origin in the uterus, it is only natural that practitioners should endeavor to check it by remedies calculated to relieve the irritability of that organ. Dr. Henry Bennet directs especial attention to the condition of the cervix, which, he says, is almost always congested and inflamed, and covered with granular erosion. This he recommends to be treated by the application of nitrate of silver through the speculum. Dr. Clay, of Manchester, fully corroborates this view.' (Playfair's *Science and Practice of Midwifery*, vol. 1., p. 212 and 213.) In justice to our fellow-countryman, Dr. Bennet, I trust you will insert this reclamation.

I am, sir, yours, etc.,

"February 23, 1878.

OBSTETRICUS."

"Obstetricus" is exceedingly charitable to American doctors—not surprising that they should be ignorant of Dr. Henry Bennet's views, etc. Really, the American profession hardly knew the views of any one else but Dr. Bennet, until the appearance of the admirable treatise of Dr. Thomas, upon diseases of women! The writer evidently does not know those views himself, for Dr. Bennet never advised the application of nitrate of silver to a healthy cervix, and in three of the cases reported by Dr. Jones, the cervix was healthy, while in the others the disease was trivial. The reclamation, therefore, of "Obstetricus," is, to say the least, very stupid.

AMATEUR VIVISECTION.—In reading that very interesting book, *Reminiscences of Henry Crabb Robinson*, we met the following curious statement as to Christian Brentano, a brother of one of Robinson's friends, who was managing the estates of his family in Bohemia: "To show that animals might be made to sustain the remedies which art has discovered for human miseries, he broke the legs of some cocks and hens, in order to make them walk with wooden legs." This Brentano, heathen we should call him rather than christian, ought to have been presented with a copy of Coleridge's *Ancient Mariner*.

“NEW METHOD OF EXTRACTING CATARACT”—INQUIRIES CONCERNING.—Dr. Thompson says, in his article on the above subject in the March number of the *American Practitioner*:

“No sooner had the knife entered the anterior chamber than the aqueous humor running beneath the conjunctiva pressed it out, so as to entirely obscure the upper margin of the cornea.”

I. I can not understand how this would compel him to make his incision one-ninth of an inch from the upper margin of the cornea. I do not consider myself an expert, nor do I claim to operate better than Dr. Thompson, still I can not understand why only such an alternative was left him. I have had the accident occur a number of times, but it never prevented my making the incision where I intended to when I commenced.

II. “The knife, after the puncture and counter-puncture were completed, was turned upon its axis, and a straight incision was made.” The knife is revolved while you are cutting out, I believe, still the incision is straight. I should think there would be considerable curvature to it—at least enough to prevent its being called a straight incision. Why is it called a straight incision?

III. “The iris is then drawn out by the operator,” etc. In the cuts accompanying the article, and from the words used by the author in his description of his new method, one is led to believe that the iridectomy extends to the periphery, as in the Graefe and other operations. His cut shows it extending thus. How is it possible to do such a thing, when the incision is one-ninth of an inch from the margin of the cornea, unless the iris is torn loose from its attachments by traction, which most assuredly would be a dangerous undertaking, as the ciliary body, choroid, retina, and vitreous would be apt to come also? How, then, is this iridectomy performed? Or how does he remove the portion of the iris extending from his incision to the periphery, which is, according to Dr. Thompson, one-ninth of an inch in extent?

W. CHEATHAM, M. D.

ACRANIA.—Dr. W. T. Cleland, of Kewana, Ind., reports the following case of acrania:

Mrs. M. L., thirty-five years of age, between five and six months pregnant, consulted me on the twentieth of October. Fetal motions, which had been very distinct, were no longer recognized; the abdomen ceased to enlarge, she had nausea and constipation. Appropriate remedies being directed, she was soon better. Diagnosing death of the fetus, I advised her to wait until the normal period of pregnancy was accomplished, unless the condition of her health should demand interference.

On the twentieth of January I was again sent for, and found her with decided fever, furred tongue, severe pain in the stomach, bilious vomiting, and occasional uterine contractions. Giving her suitable remedies, I found her the next morning very much better, but decided expulsive pains had come on, by which the membranes had been ruptured. Upon digital examination, found the os uteri dilated to the size of a silver dollar, and a foot protruding. After dilating the os, in about thirty minutes the patient was delivered of the entire ovum. The fetus, which was in good preservation, presented very prominent eyes, an entire absence of brain, and only half an upper lip: the arms and legs were very long, and, as usually happens very fortunately in these cases, the body was small.

In a practice of over thirty years, I have met with many cases of similar fetal deformity. Young practitioners are often puzzled in recognizing the presenting part in such deformities. But whatever part may present, I think it always best to deliver by the feet.

LOUISIANA STATE MEDICAL ASSOCIATION.—This organization was effected in New Orleans last January. The following officers were elected: President, Dr. J. C. Egan; Vice-Presidents, Drs. S. M. Bemiss, J. W. Dupree and G. A. B. Hays; Recording Secretary, Dr. Thomas Layton, and Corresponding Secretary, Dr. S. S. Herrick; Dr. Geo. K. Pratt, Treasurer.

Dr. S. E. Chaillé was elected Orator for the first regular meeting.

Louisiana is late in organizing a State Society, but its eminent success is certain with such men as Bemiss, Richardson, Chaillé, Clay, Choppin, Holt, Jones, Herrick, Miles, Schuppert, and others, taking an active part.

A FORGOTTEN LAW.—In the minutes of the meeting of the American Medical Association at New Orleans, in 1869, we read that the following resolution was adopted: "That private handbills addressed to members of the medical profession, or by cards in medical journals, calling the attention of professional brethren to themselves as specialists, be declared in violation of the Code of Ethics of the American Medical Association."

It is time this law should be repealed, or else those who are violating it by advertising their specialties in medical journals—these violations are committed in Boston, Chicago, Nashville, and other cities—be required to withdraw their advertisements.

BATTEY'S OPERATION.—Dr. Sims has published in the British Medical Journal a very interesting paper upon this operation, and the paper has since been issued in pamphlet form. He is a warm advocate of the operation, though with his accustomed frankness he confesses but twenty-five per cent. of the patients operated on have been cured. He gives good reasons for the many failures, and points out the means of avoiding the mistakes that have been made in the operations that have failed.

The number of operations reported by Dr. Sims is twenty-eight, with five deaths. Now we happen to know of three others, the operator being in all respects able and competent, every one of which was fatal. Add these three to the twenty-eight given by Dr. Sims, and we have a total of thirty-one cases with eight deaths. Thus the operation resulted fatally in more than twenty-five per cent. Were all the cases of the operation collected, we would not be surprised to find the mortality greater.

AMPUTATION OF THE NECK OF THE UTERUS.—Dr. LeBlond, editor of the *Annales de Gynécologie*, has published an interesting memoir upon the above subject, it having first been presented to the Geneva International Medical Congress.

The monograph has numerous illustrations, and its conclusions are as follows:

I. Amputation of the neck of the uterus should be performed without traction upon the organ.

II. The galvano-caustic method is especially applicable in case of cancer, though it may also be employed in simple hypertrophy.

III. Not having the galvano-cautery, it is necessary to use the *écraseur* in cancer.

IV. Scissors are to be preferred to the bistoury when the galvano-cautery or *écraseur* is not used.

V. The bistoury should not be employed except in cases of hypertrophic elongation of the supra-vaginal neck.

A CURIOUS CASE.—A little child at Brighton has been killed by accidentally swallowing a squeaking air-bladder. It appears, from information kindly furnished us by Mr. G. A. Johnson, that the toy slipped through the glottis with the bladder downwards, and the quill mouthpiece upwards, so that with every inspiration the bladder became more or less inflated, and thus prevented the entrance of air to the lungs, and produced death by suffocation. A verdict of "accidentally suffocated" was returned by the jury. The case must be unique. (The Lancet.)

HOME FOR OPIUM HABITUÉS. — We invite attention in another column to the announcement of Parrish Hall, the Medical Home for Opium Habitués, Brooklyn, N. Y. It offers unusual facilities for the treatment of opium addiction, and we learn the results prove conclusively the efficacy of therapeutical resources in overcoming this formidable disorder.

A VERY DOUBTFUL EXTRA-UTERINE FETATION.—The Toledo Medical and Surgical Journal of March, contains a keen and needed criticism of a report recently made in the New York Medical Journal of a case given as “*Tubo-Interstitial Pregnancy—Destruction of the Life of the Fetus by the Galvanic Current.*” We think the profession generally will sustain the opinion of the critic, that it was a case of ordinary pregnancy, and that a needless abortion was produced.

DR. BELL'S EULOGY.—The eloquent address upon the life and services of the late Lunsford Pitts Yandell, published as a supplement to this number of the American Practitioner, we know will be read with great interest. Our subscribers have the advantage of this large number of extra pages without extra expense to them.

OVERCROWDING IN THE PROFESSION.—Not long since a medical gentlemen, advertising to dispose of a paying practice, received nearly two hundred applications, while another seeking for an opening was singularly neglected.—The Medical Record.

MEMORIAL ADDRESS

UPON THE

Life and Services of Lunsford P. Yandell, M. D.

BY THEODORE S. BELL, M. D.

Professor of the Theory and Practice of Medicine, University of Louisville.

Mr. President: At a meeting of the faculty of the Medical Department of the University of Louisville, on the fourth evening of February, a resolution was passed providing that at this commencement occasion a memorial address on the life and services of Professor Lunsford Pitts Yandell, Sr., should be made, and I was selected for this duty, because I was one of his pupils in the beginning of his splendid career as a medical teacher, and because I have been his friend and companion for the space of forty-seven years. In obedience to that call, I am here.

Gentlemen of the Faculty: The sadness and solemnities of a great loss are upon us, and I desire to approach it in a spirit consonant with all that is proper and appropriate on such an occasion. When those who for a long period of time trimmed and held the lamps, so that they might diffuse light, have ceased to perform those offices, we feel that we have been bereft of many sources of healthful joy, of beneficent trust, of munificent treasures.

The Hebrew prophet, in his hallowed vision, penetrated "the under world," and saw its scenes of grandeur as they were called forth by the downfall of him who had laid his heavy hand on the people of God. The highest flights of Greek and Roman poetry sink before it; even the Æschylus scenes of the burning beacons, that leaped from hill to hill, and conveyed to Greece the intelligence of the fall of Troy, are tame in the presence of the sublime imagery, the splendid roll-call, the vivid life that moves in this

panorama, called into existence by the genius of Isaiah. Nature herself bursts forth in rapturous joy, thanksgiving and praise:

“How hath the oppressor ceased! The exactress of gold ceased!
 He who smote ‘the people’ in wrath with a continual stroke.
 He that ruled the nations in anger, is persecuted—none hindereth.
 Yea, the fir trees rejoice at thee—and the cedars of Lebanon, saying,
 Since thou art laid down—no feller is come up against us.”

In his ecstatic vision Isaiah saw “the under world” moved by the great event:

“It hath raised up from their thrones all the kings of the nations.
 They all speak and say unto thee,
 Art thou also become weak as we? Art thou become like unto us?
 Thy pomp is brought down to the grave, and the noise of thy viols;
 * * * * *
 How art thou fallen from heaven, O Lucifer, son of the morning!
 How art thou cut down to the ground which didst weaken the nations!
 For thou hast said in thine heart,
 I will ascend into heaven, I will exalt my throne above the stars of God;
 I will sit also on the mount of the congregation, in the sides of the north;
 I will ascend above the heights of the clouds; I will be like the Most
 High.
 Yet thou shalt be brought down to hell, to the sides of the pit.
 They that see thee shall narrowly look upon thee and consider thee,
 saying,
 Is this the man that made the earth tremble, that did shake the king-
 doms;
 That made the world as a wilderness, and destroyed the cities thereof;
 That did not let his prisoners loose homewards?”

And may not we, with an eye of faith, look in upon that “under world,” and see the lover of Christianity, the apostle of science, the earnest devotee to the medical profession, greeted and hailed with joy and rapture by the throngs that knew him in this life, and who had preceded him in the journey of immortality? If that “under world” has wrath and condemnation for the oppressor, the evil doer, and the worker of all unrighteousness, is it not the fullness of joy, of rapturous joy, to know, by faith, that in its wide domain there are many mansions reserved and prepared expressly for the blessed in Christ; for those who labored in the ordeal of this life to not only enjoy the full fruition of the beatitudes poured out bountifully in “the Sermon on the Mount,” but to diffuse them to others whenever and wherever opportunity was offered, or could be made? May we not rejoice to know that

“the ministering spirits” appointed for “the heirs of salvation” accompany them across the Jordan of death to the heavenly Canaan? That on the grand and eternal fields of that inheritance they are met by those who have well performed their part in the pilgrimage of this life, who have ended faith by sight, hope in fruition, and are filled with an eternal love? This inheritance is far beyond the most enraptured vision that the eyes of the Hebrew prophets ever saw.

I have felt it incumbent upon me to say at least this much respecting a conspicuous trait in the life of the man to whose memory we joyfully pay tribute. In an early part of the public labor he performed in Transylvania University, he made prominent, not only his devotion to Christianity, but he urged upon the medical students to whom his address was delivered, its all important character. He earnestly and cogently said:

“I owe it to you, to my conscience, to the professions I have made, and to that Being who is above all these, to exhort you to be something higher and better than wise men; and to declare my firm belief that there is no system of sound morals, no safe guide for human conduct, that neither virtue nor knowledge has any vigor or immortal hope, except in the principles of the Christian faith, and the doctrines of the Christian religion. And let me add my conviction, that if you will bring to the study an impartial temper, and one-half of the industry with which you have prosecuted medicine this winter, your investigations will result in a firm, unwavering and salutary belief in their truth.” And during the forty-six years that have rolled their courses since our illustrious friend uttered these immortalizing truths, we, who knew him intimately, know that he made these principles the constant guide of his life—they were his solace in dying.

I should feel that I had done but a very small part of my duty to his memory were I to permit this occasion to pass away without improving it with some remarks on this momentous theme. I know that it is unfashionable to speak in behalf of Christianity; I know that there is an undercurrent of infidelity that is steeped in ignorance, that takes a delight in destroying all the hopes that rest on this fair fabric. But there is a strong probability that this is the last time that I shall occupy the rostrum for a public lecture, and that is a cogent reason why I shall say something on the point before us. May I not ask for this episode your careful attention?

If the wild and incoherent infidelity among us goes back to Theocritus, Lucretius and Lucien, may we not do the same?

And, I ask, does not all concurrent testimony show that in the days of Nero all precedent civilization was utterly dead? The Greek, the Roman and the Hebrew were alike effete and trampled under foot. The highest hope of mankind was concerned about one thing alone—that was Nero-olatry, the worship of Nero. What revived the Greek, the Roman and the Hebrew literature and philosophy? What was it that breathed into those dry bones the breath of life, and rehabilitated them with flesh and blood? Something passed over this vast morass of death, and quickened it into undying verdure. What was it? From whence came this vivifying power, this marvelous vivification? Something was born among men that changed the whole current of history. Let us look at the events in the bald light of mere history. Let us strip them of every claim to divine power, and what do we find? A poor Jew, a man of a detested race, toward which Greek and Roman felt an utter repugnance, began in Judea to teach a new doctrine, a system of morals at once pure and sublime, and he, for the first time, taught immortality. He chose for his companions the lowest members of the Jewish race, who spoke a dialect almost unintelligible to the Jews. The grand tribunal of the Jewish race arrested him and put him to death; and from this beginning started the mightiest power that has ever moved among the inhabitants of this planet. In its wide-spread domain it has never been rivaled; in its persistent power it has never been equaled. It has in it now “the fountain of immortal youth;” it is as young, as vigorous, as all-subduing as when it started on its grand career. At this moment it shows as small a propensity toward decay as at any moment of its existence. It bore unchanged the mightiest changes of the earth; the rage and bloody persecution of the Jewish hierarchy and all the power of the Roman empire. I ask—and may I not reasonably ask—those who are mighty and potent in EVOLUTION to explain this phenomenon. The entire history of the earth has nothing that even approaches a parallelism to this. For nearly two thousand years this power, thus lowly born, without any adventitious aid, has ruled the ablest minds and the purest hearts of the human race. Can the enigma be solved? Say that it was a mere human event, from whence came its vitality? No power coeval with it, no

matter how enthroned, no matter how panoplied, has come down the stream of time with it. It did not ally itself with any force extrinsic to itself; it contained constant protest against any such alliance, and it survived, pure, youthful, ennobling and vivifying, when other matter was wrecked, when all other worlds of thought were crushed. That solution of the enigma will not, can not do. Nature has made the law, that can not be transgressed—the stream can not rise higher than its fountain. Say that it was a fraud, what other fraud ever stood the ordeal through which this has passed? And what fraud, among all that have been fabricated, was ever made of such material as this? There is not a flaw anywhere within it. It inculcated and rendered obligatory the purest, sublimest morals that the earth has ever known. Is this a birthright of fraud? If so, in what other one, in all the history of the earth, has it ever been found?

I hold that it is incontestably of divine power, and that upon no other basis can any one account for its birth, its progress, its mighty sway, its existence from its birth to the present moment.

I do not envy that man who undertakes to impair this, the richest bequest that Palestine, which teemed with other splendors of glory, ever gave to the human inhabitants of the earth. Swung loose from its moorings in this faith, the human family is thrown upon a tumultuous ocean, the sport of its wild waters, without rudder, compass or light-house. The horrible, loathsome picture of human nature, portrayed with the supreme skill of a pre-eminent limner, in the first chapter of the letter to the Romans, would be its portrait now. Juvenal, Persius, Catullus and Ovid bear abundant testimony to the truth of the picture. There was not one redeeming gleam of moral beauty in the somber hues of this portraiture of human desolation and depravity. The purifying, ennobling, chastening power of the gospel of Christ lifted humanity from the sloughs of this degradation. No other power has yet been conceived that could have done this. In accepting this we have not followed a cunningly devised fable. There is not a fact in the history of this planet that stands on a more imperishable foundation of truth than this. Not one argument against it has ever borne the ordeal of trial. I know what I affirm, for I have carefully tried every one that I have ever heard of. The truths of Christianity have stood uninjured the test of nearly two thousand years. Evolution is but the creature of yes-

terday, that will perish in the using. We solve, by the court of our reason, through the equipments of the mind, all other historical questions. Why not this, infinitely the most momentous one ever addressed to the human faculties? Why shall this alone be given over to the puerilities of dogmatism, of wild, bootless assertion, and the windy emptiness of sneers? As Jean Paul Richter says: "There is an infinite interval between the tallest of our race and that Majestic One, who, being the holiest among the mighty, and the mightiest among the holy, lifted with His pierced hands empires from their hinges, turned the stream of centuries out of its channel, and still governs the Ages."

I have said enough on this theme for such an occasion as this. I rejoice that our friend whose loss we deplore panoplied himself with the graces and vigor of this great power, and gathered the mighty strength of his life from its vitalizing influence. I owed to his memory its embalment in the precious material of this faith. I owed to myself this testimony in its behalf.

In the very morning of the illustrious career run by Professor Vandell he accepted a life of toil that should bear rich and noble fruit. In the introductory discourse to the first medical class that he ever addressed, he said: "There are many medals in the natural history of the West, which the industrious of you will receive,—contributions to be made to the stock of science, which will place the aspiring of you on the same catalogue with Linnæus, Harvy, Priestly, Lavoisier and Davy. And," he added, "let me say to you, that that individual who shall write the natural history of the Western country, present the locality of its minerals, describe the geology, the character of its animal and vegetable productions, analyze its mineral waters, and describe its diseases, with the causes which give rise to, and the method of preventing and curing them, if he may not be promised the boon of immortality, will yet both add to the glory of his country, derive a rich present reward of fame and money, and be ranked by posterity among the effective contributors to science."

This is an epitome of his own great career, and through forty-seven years of his life he earnestly, sedulously and actively pursued the practices thus inculcated. It was my good fortune to hear his first course of lectures on chemistry, and I can bear testimony to the fact that he imbued the class with a love of science which no preceding one had known. But it was on the occasion

of his removal to Louisville that he entered upon his great career as a geological explorer, as a paleontological student, in which he won merited distinction. The coral reef at the falls of the Ohio; the fossiliferous beds of Beargrass creek; the Buttonmole hill in this county; the quarries in the neighborhood of the city, and Spergen hill, in Indiana, greatly enlarged his knowledge in these rich fields of exploration, and enriched his cabinet with priceless treasures. He entered into this field of research in the very healthful frame of mind that Whewell has well described when he says:

“The real philosopher, who knows that all the kinds of truth are intimately connected, and that all the best hopes and encouragements which are granted to our nature must be consistent with truth, will be satisfied and confirmed, rather than surprised and disturbed, to find the natural sciences leading him to the borders of a higher region. To him it will appear natural and reasonable that, after journeying so long among the beautiful and orderly laws by which the universe is governed, we find ourselves at last approaching to a source of order and law and intellectual beauty; that, after venturing into the region of life, and feeling, and will, we are led to believe the fountain of life and will not to be itself unintelligent and dead, but to be a living mind—a power which aims as well as acts. To us the doctrine appears like the natural cadence of the tones to which we have so long been listening; and without such a final strain our ears would have been left craving and unsatisfied. We have been lingering long amid the harmonies of law and symmetry, constancy and development; and these notes, though their music was sweet and deep, must too oft have sounded to the ear of our moral nature as vague and unmeaning melodies, floating in the air around us, but conveying no definite thought, molded into no intelligible announcement. But one passage which we have again and again caught by snatches, though sometimes interrupted and lost, at last swells in our ears full, clear and decided; and the religious hymn in honor of the Creator, to which Galen so gladly lent his voice, and in which the best physiologists of succeeding times have ever joined, is filled into a richer and deeper harmony by the greatest philosophers of these later days, and will roll on hereafter, the ‘perpetual song’ of the temple of science.”

As we survey the earnest and continuous efforts of Prof. Vandell,

of this zealous devotee to science, we are struck by the varied and diversified character of his labors, and with the monumental pile he reared by those labors. All scientific inquiry commanded his attention and won his active agencies. He surveyed the starry constellations, and found in them abundant food for his mind; he saw them and studied them as the work of Him

“ Who alone spread out the heavens,
And treadeth upon the waves of the sea.
Who made Arcturus, Orion and Pleiades,
And the chambers of the South;
Who doeth great things past finding out; yea, and
wonders without number.”

His love for natural science became intense, and to the abundant riches of this part of the State he found ample scope for the zeal that fired his soul. He called from their crypts the members of the crinoidean world; he saw them as radiated animals, growing on a long, jointed stalk, and possessing a wondrous beauty. They fairly swarmed in the early seas, in the primordial ages of the earth, and culminated in the carboniferous era of our planet. A vast profusion of the crinoids extended from Jefferson county, in Kentucky, down into Alabama. At the command of his palæontological genius, the fossil forms seemed to be once more endowed with life, and give us glimpses of the world as it existed when they crowded the waters and were preparing to make immense monuments with their remains. These stone-lilies are among the most beautiful things of the fossiliferous ages. With a rare and earnest eloquence, and a mind full of the theme, he prepared a paper for “The Home and School,” an educational periodical, published in this city, on the question “What fossils teach.” Of all his scientific papers, if it is lawful to make a distinction where all are replete with interest, this is one of the profoundest, and is remarkably full of instruction of very great value. In this admirable essay the encrinites play their part. The whole of this admirable paper is written in a style of great excellence. The exordium is of singular beauty, recalling, as it does, the graceful, eloquent teaching of Mantell, and the effulgent splendors of Hugh Miller. The peroration is in fine keeping with all the other great merits of this essay.

Professor Vandell says: “The grasses in which the grain-bearing plants are ranged—wheat, rye, barley, rice and Indian corn

—had not then clothed the earth with verdure; nor had the family been called into existence which affords the apple, the peach, the grape, the orange and the rose. There were few or no spices yielding ‘cinnamon and odors and frankincense and wine, and oil and fine flour.’ The odors which give beauty to the earth, and load its air with fragrance and supply us with our delicious subacid fruits, had not appeared. But when all these had been fashioned, and the ruminant family among animals had been introduced to supply him with milk and flesh best suited to his wants, then, ‘in the fullness of time,’ man, of noble aspect and erect in gait, with face that turns naturally upward toward the heavens, with hands framed to execute whatever his mind can devise, with ‘reason looking before and after, and conscience having respect to a life to come,’ was brought upon the stage to preside over the goodly scene and hold communion with his Maker.”

In 1847 Professor Yandell and Dr. B. F. Shumard published “Contributions to the Geology of Kentucky.”

In 1848 Professor Yandell published a “note to M. de Vernuil, concerning the discovery of calcareous arms in *Pentremites Florealis*.” This fossil, in its most perfect condition, is found in the Keokuk beds, at Crawfordsville, Indiana. This “note” was published in the Bulletin of the Geological Society of France.

In 1851 Professor Yandell published a very valuable and highly-prized article “On the Distribution of the Crinoidea in the Western States.” It was published in the proceedings of the American Association for the Advancement of Science.

In 1855 there appeared in “The American Journal of Science and Art,” known over the world as Silliman’s Journal, from the pen of Professor Yandell, “A Description of a New Genus of Crinoidea, named *Acrocrinus Shumardi*.”

During all this time he was laboriously engaged in the practice of his profession, and in his duties as a medical teacher in the University of Louisville. And, in addition to these, through a long period of time, he regularly gathered the medical class on Sunday mornings, and taught them the relations of geological science to the genesis of creation, as recorded by Moses. Many works have been recently written on this subject, but Professor Yandell was one of the earliest laborers in this field, he having given the rich intelligence of his mind to these themes more than a quarter of a century ago.

The great masters of geology and palæontology, in recognition of the remarkable merit of his labors in its departments, medalized, as a perpetual memorial, his name on these fossils:

Platycrinus Vandelli, named and described by Owen and Shumard.

Actinocrinus Vandelli, named by Dr. B. F. Shumard.

Chonetes Vandellana, by Professor James Hall.

Amplexus Vandelli, by Edwards and Haime.

Trachonema Vandellana, by Professor James Hall.

Phillipsastrea Vandelli, by Dr. C. Rominger, the great palæontologist of Michigan.

But in the short space of time allotted to me I should utterly fail were I to attempt even to name all these labors that constituted an active life of forty-seven years. I can not dwell, therefore, on any other part of my theme as I have dwelt upon this. And even it is far from being exhausted. We may rejoice to know that his valuable museum of Natural Science will remain among us here in Louisville. By his will he bequeathed it to his son honored as his namesake, who materially aided him in collecting and preserving it.

But, above all other things of a mere earthly character, Professor Vandell was devoted to his profession. He felt, with his favorite poet, that

“A wise physician, skilled our wounds to heal,
Is more than armies to the public weal.”

In his ceaseless activities in various toils, he never lost sight of the conspicuity to which the medical profession is thoroughly entitled, and he labored to promote it toward that high ideal he had formed of its significant merits. While he was far superior in learning and in the equipments for practice to Sydenham, he loved to dwell on his noble qualities and to present him as an exemplar worthy of all honor. In his mind's eye he saw him come through a civil war, an officer retired from service, without an employment of any kind. He saw him select medicine as a noble and worthy calling, and to its study he devoted himself with zeal and assiduity, and, in addition to this, he made himself one of the best Latin scholars of the time—less than Milton, but a man might be that and yet be a respectable Latinist. He obtained the name among his countrymen of “the English Hippocrates,” a proud

name to which he is eminently entitled. Professor Vandell supremely admired his character, and was intimately acquainted with his works. He made his maxims the constant guide of his professional life. In all his visiting lists he wrote, just beneath his name,

“Primum est non nocere.”—SYDENHAM.

In a number of these he wrote, from the same source, just under the first:

“Medicus curat, natura sanat morbos.”

When he roused himself to the fact that the advancement of medical science and improvements in teaching demanded a widely different field from that which Lexington furnished, he did not hesitate as to his duty. He came to Louisville, and aided very materially in founding the Medical Department of the University of Louisville. In this great enterprise, which has been of incalculable value to the Southwest, and which has largely contributed to the renown and pecuniary emoluments of Louisville, Professor Vandell, next to the Hon. James Guthrie, was the Ajax Telamon of this arduous undertaking. I have often thought of Macaulay’s “restless bed of Pascal,” in connection with Professor Vandell in these early labors. He, like Pascal, was pale and sickly, the victim of a disease that brought him near to death’s door. But his courage was invincible, his spirit indomitable, his energies nearly tireless. “Sublime indeed is the dominion of the mind over the body, that, for a time, can make the flesh and nerve impregnable and string the sinews like steel.”

In that which he felt it his duty to perform he seemed to rise superior to sickness and suffering. In this severe suffering he filled two chairs in the University, and he rejoiced to see it established as one of the most prosperous institutions of medical learning in the United States. He was directly connected with it for the period of twenty-one years, and to the end of his great life he remained its wise counselor, its active and cherished friend. Alas! how we shall miss his accustomed presence with us on occasions of this kind!

In all the years of his busy life, he was unresting in the labors that he loved. They were diversified, but such was the skill he displayed in each department which he adorned, that in looking at any one specimen of his work we might have supposed that one

was his vocation. Whether he wrote history, essays upon geology, on medical themes, biography, the advancement of education, or the wisdom, the power and beneficence of the Creator in His works, he seemed to make each theme his own, and he adorned it with life and beauty. Independently of his lectures, he wrote fully one hundred papers on the various subjects that he had studied, and they are papers of profound interest. His mind was admirably equipped for work of this kind. He seemed to have caught, in its fullness, the spirit of the teachings of Dr. Abercrombie, in his great work "On the Intellectual Faculties:" "Learn to feel the supreme interest of the discipline of the mind; study the remarkable power which you can exercise over its habits of attention and its trains of thought, and cultivate a sense of the deep importance of exercising this power according to the principles of wisdom and virtue. Judging upon these principles, we are taught to feel that life has a value beyond the mere acquirement of knowledge, and the mere prosecution of our own happiness. This value is found in those nobler pursuits which qualify us for promoting the good of others, and in those acquirements by which we learn to become masters of ourselves. It is to cultivate the intellectual part for the attainment of truth, and to train the moral being for the solemn purposes of life, when life is viewed in its relation to a life which is to come."

How grand and ennobling are such trainings and equipments as these for the sublime and glorious purposes of our lives! How vast may the proportions of these lives become by incessant exertions on our part, to send abroad the fertilizing influences that quicken our whole being into works of beneficence, of kindness, of mercy, of gentleness, adorned with all the graces of philanthropy! I have known many students who seemed to grasp each flying moment for improvement, but I have never known a more incessant student than Professor Vandell. As his manifold acquisitions fell from his mind, it was lawful and natural to wonder where he could have gathered them. If you were very intimate with him, and saw how he improved every opportunity, how, instead of shunning labor, he courted all the exactions of toil, the wonder would have been reasonable whether there was anything which he did not know. He was very familiar with the heights and depths, with the most recondite intricacies of the English language. The monstrosities of uncouth forms called the English

dialect did not mar and disfigure the purities of his compositions. There was a freshness, a clearness of diction, an energetic style that make his writings a delightful study, and these were as conspicuous in his recent writings as in those of any period of his career. In this respect he is a model, an exemplar worthy of a large following. You will find in English medical literature, prepared by men who have gone through university terms at Oxford or Cambridge, an attempt at emphasis by using the word "most" in a way to make it mean nothing. If they wish to be emphatic, instead of saying very correct or very accurate, they insult us by saying most correct or most accurate, never having learned, apparently, that most is the superlative of much, and in the mass of places where it is applied must be used, appropriately, as such. From such sins and vices in composition akin to them, as these, Professor Yandell was unusually free. His words, and words are things, were not like a disorderly soldiery in bewildered, tumultuous flight, but each part of speech fell into its place and marched as steadily and correctly as a well-disciplined army. He held that whatever is worth doing, is worthy of being well done.

A gentleman who became intimate with Professor Yandell soon after his arrival in this city, and who is distinguished for his liberal help to the needy, told me recently that he had often called upon Professor Yandell for help in cases of distress, and that in no instance had he ever failed in getting all the aid he told him he needed from him. In this respect the poor have lost in him a munificent friend.

I have known but few men as thoroughly acquainted with the whole range of English literature as Professor Yandell. He had its great masters in all their grandeur, in their diversified beauty, energy, vigor and potency, in very perfect ministry to his wishes. It was delightful to hear their eloquence, their terseness, their epigrammatic wit sparkle in his conversation. His colloquial powers, through these vitalizing agencies, were of a very high character, and it was a rare feast to listen to them.

In all the relations of his life he was eminently great. He adorned the lecture room with a fervid eloquence; as an editor of medical journalism he had few equals and no superior; as a medical essayist he was forcible, clear and instructive; as a geologist and palæontologist he was one of the foremost cultivators in the West and Southwest, and he ranked very high among the

masters of these sciences. He was an able, judicious and instructive biographer in his profession, and his great biographical work on the medical men of Kentucky is in such a state of forwardness that there is good reason to suppose it will yet see the light. A foretaste of its excellent qualities has already been given in the published monographs on Professors B. W. Dudley, Charles Caldwell, John Esten Cooke and Dr B. F. Shumard, and those who have partaken of these streams will rejoice when the full flowing river is ready for profitable use.

If any one wishes to see and understand his masterly ability, I direct attention to that elaborate and eloquent "Address on Medical Literature before the International Medical Congress," which assembled at Philadelphia in 1876. It is filled with profound interest. There is in it almost an exhaustive research, a careful weighing of statements in uttering his judgments, a lively, spirited, clear and terse style, that commends it as the ablest paper that has appeared on the subject.

In addition to the paper on "What fossils teach," to which I have already referred, he wrote for the *Home and School*, a journal devoted to education, literature and science, edited by Major Davis, of this city, these valuable essays: "The blood in its relations to the brain," "Food and digestion," "Influence of the mind on the body," an essay "On the brain," "The poetry of science," "Physiology of sleep and dreams," and "On birds," each of which will well reward study.

The last paper which he lived to write was probably one of the most instructive of all his voluminous writings, replete as they all are with instruction. It is entitled "Old Age: its diseases and its hygiene." It is a panorama of striking facts of absorbing interest. The closing sentence of this paper is: "The thought with which I would close this essay is that the danger which most imperils old age is not overwork, but the want of enlivening occupation." He had inculcated a doctrine akin to this in his paper on "The influence of the mind upon the body." He enforced it strongly and beautifully by reference to the life of Dean Swift. In this excellent, this judicious paper on "Old Age," which we rejoice to know he was preserved to finish, occurs this instructive passage: "The enfeebled power of generating heat renders aged persons extremely sensitive to cold, and liable to the complaints which cold engenders. Many old people, especially among the

poor, fall victims to pneumonia every winter. Dr. Cooke, just referred to, long a teacher of medicine in Kentucky, had repeated attacks of pneumonia, and finally died of one brought on by exposure to cold on his farm. If he stood on a cold pavement, at any time, until he began to shiver, he was sure, as I have often heard him remark, to have an attack."

It is very curious that our illustrious teacher, with such lessons as these written to guide others, should have fallen a victim to pneumonia by neglecting his own excellent teaching. He referred to this fact on his death-bed, and said that it was strange that he should then be ill from a failure to observe one of the most clear of all sanitary laws, one which he had fully inculcated in this essay. It was an illustration, added to many thousands of examples, of the truth of the sentiment of Horace:

"I know the right, and I approve it, too;
I hate the wrong, and yet the wrong pursue."

In this essay, Professor Yandell says: "In truth we have to confess that we know not what is the natural term of human life." He combats the prevalent prejudice that severe studies shorten life. He very properly considers that "climate, personal habits, occupation and mode of life, are known to be vastly influential." Elam, in his work, "A Physician's Problems," in addition to the instances given by Professor Yandell, enumerates many examples of old age, in persons of great learning and very studious habits, from which I quote: Fontenelle, the most universal genius that Europe has produced, was for forty-two years secretary to the Academy of Sciences in Paris; he lived with unimpaired faculties to the age of one hundred years. When he was asked whether he felt any pain, he replied: "I only feel a difficulty in existing." Father Sirmond, called by Naude, "an inexhaustible treasury of ecclesiastical lore," lived to be ninety-three; and Hutton, the great geologist and cosmogonist, notwithstanding the fiery flames of persecution that he had to pass through on account of his geological teachings, died at the age of ninety-two.

Gorgias, the rhetorician, lived to the age of one hundred and eight years, "without discontinuing his studies and without any infirmities." Epimenides, the seventh of "the wise men of Greece," lived to be one hundred and fifty-four. The preceptor

of Hippocrates, Herodicus, a distinguished physician and philosopher, lived to the age of one hundred. Hippocrates lived to be ninety-nine, and his labors and studies were very great. Galen, a laborious writer and physician, was on the verge of one hundred years when he died. He is said to have written three hundred volumes. Theophrastus wrote two hundred distinct treatises, and lived to be one hundred and seven years old. Democritus, the philosopher, died at the age of one hundred and nine. Xenophon, Diogenes and Carneades each lived to be ninety. Varro was a studious scholar and laborious worker in author-craft. He composed five hundred volumes and lived eighty-eight years. Euripides was eighty-five years of age before death overtook him. Polybius was eighty-one, Juvenal over eighty, Plato died at eighty-one, and Socrates was murdered at seventy-one years of age. Theodore Beza, the illustrious scholar, and one of the greatest of controversial writers, was in perfect possession of his faculties at eighty-six. Richard Bentley, one of the greatest of scholars, died at eighty-one; Hobbs at ninety-one; Heyne at eighty-four; Parr at eighty; Pighius at eighty-four.

M. Lordat, in his "*Mental Dynamics*," gives many instances of successful literary pursuits being carried on to an extremely advanced age. Among them is that of a French poet, M. Quersonniers, who, in 1844, was one hundred and sixteen years of age. He was remarkable for his fine conversational powers and vivacity. In conversation with a friend, he said: "I am descended from Methusaleh; we must be killed in order to die; my maternal grandfather was killed by an accident at 125 years of age. I invite you to my funeral in the next century."

Lord Brougham reached the age of eighty-nine, and was engaged constantly in intellectual labors, from early boyhood to the end of his life. He once worked six continuous days (144 hours) without sleep, then rushed down to his country lodgings, slept all Saturday night, all Sunday and Sunday night, and was waked by his valet on Monday morning, to begin another week's work. His labors were equal to those of half a dozen ordinarily active literary men. He never seemed to be fatigued.

Mr. Maclaren, of the Gymnasium, Oxford, in his work on "*Physical Education*," says: "There is no error more profound, or productive of more evil, than that which views the bodily and mental powers as antithetical and opposed, and which imagines

that the culture of the one must be made at the expense of the other. *The truth is precisely the reverse of this. In the acquirement of bodily health, mental occupation is a helpful, indeed a necessary agent.*" Dr. Madden, in his work on "The Infirmities of Genius," says: "It may truly be said, without any hyperbole, that every pursuit which ennobles the mind has a tendency to invigorate the body, and, by its tranquilizing influence, to add to the duration of life."

It was the besotted voluptuary, Festus, who gave currency to the doctrine, against which Professor Vandell reasoned in this paper. Festus, amazed at the fervid, electrical eloquence of Paul, said: "Much learning has made you mad," as if, in the annals of mankind, such a thing had ever occurred. We owe Professor Vandell a debt of profound gratitude for this able essay.

Professor Parvin records that in a note accompanying the manuscript, he said: "This probably is the last of my contributions to medical journalism." Alas! that death should have made this a truthful prophecy. At noon, on Thursday, before he died, he began a note to his son, saying: "I should like to see the proof of my article on Old"—his hand failed him, and he was unable to read his proof-sheets when they were brought to him. He died in the full harness of labor.

His last pecuniary transaction was a fitting close to a life that loved to look to the faith in the gospel of Christ, that gives "a hope which we have as an anchor of the soul, both sure and steadfast." The last business transaction, just before he took to his bed, was the payment of his dues to the Orphans' Home.

As a professor, he was always gentle, kind and courteous to medical students. Among his medical brethren he stood very high. His family relations were a picture of supreme bliss. He loved his children with a very pure devotion, which they fully reciprocated. In his recent visit to Texas to attend the wedding of his son, he became enamored with the climate and beauty of Seguin and San Antonio. In his diary I find this record: "I should move to Texas, even at my advanced age, if it were not for my children and grandchildren, who bind me to Louisville. I find myself constantly revisiting in memory the beautiful country about Seguin and San Antonio, where, if I could have my dear ones all around me, I think it would be so pleasant to spend the few declining days that may be left me on earth. I am about finishing

my work on the 'Medical Annals of Kentucky,' and then I do not propose to undertake any other task."

The members of the College of Physicians and Surgeons elected Professor Vandell President of that organization. The State Medical Society, at its annual meeting in this city, last April, honored itself in electing him President of that body, an election which caused a general joy among the medical men of Kentucky. His address on that occasion was, and is, replete with profound interest. How beautifully did he draw, on this occasion, from the rich resources of Crabbe, this picture of medical art and science:

"Glorious its aim! To ease the laboring heart,
To war with Death, and stop his flying dart,
To trace the source whence the fierce contest grew,
And Life's short lease on easier terms renew;
To calm the frenzy of the burning brain,
To heal the tortures of imploring pain;
Or, where more powerful ills all efforts brave,
To soothe the victim no device can save,
And smooth the stormy passage to the grave."

On the anniversary of his birthday, July 4, 1875, he had reached the Psalmist's allotted span of life. In his diary he records: "To-day I have lived my three score and ten years. I have outlived all my family, and have but few cousins older than I am to-day. I have been greatly blessed with health, and with activity of body and mind. I still enjoy life. I love society, especially that of my little grandchildren.

"I look forward without concern to the future, having placed my all in the hands of Him who, having loved me when I was His enemy, will order all things well for me now that I have put my trust in Him. I am persuaded that He will keep that which I have committed to him against that day."

January 1, 1878, when he was over seventy-two years of age, his diary has this record: "I entered upon the year in excellent health, and in a truly social spirit. I commenced my New Year's calls with a visit. * * * It was a day of real pleasure to me." On the 25th of January he records a visit to a patient. He left his office at one o'clock, and never returned to it again.

He often quoted Horace. In one place he says:

"Dost thou become more sage,
Milder and mellow, with declining age?"

was a question which Horace habitually asked himself, as his works show;" and, in answer to Horace, Dr. Vandell quotes Wordsworth:

" Old, yet unchilled by age."

But time is waning. I have endeavored to present to you the conspicuous elements that constituted the supreme excellence of the character of Professor Vandell. He died in the spirit in which he had lived. When the summons came he met it in the full possession of his mind, placidly, calmly, contentedly—

" Sinking as sinks the sun
Below the farthest hills, when his day's work is done."

He did not feel, as Lord Chesterfield expressed himself in dying, that "he was taking a leap in the dark." On the 4th day of February his "mortal part put on immortality." He was fully enrobed for this great journey.

The profession of the city honored his remains. A great profusion of flowers decked the casket that contained his body. On the swift courses of the telegraph lines came messages of sorrow and sympathy from the great and eminent of the medical profession throughout the continent.

" What would'st thou have a good, great man obtain?
Wealth, title, dignity, a golden chain,
Or heap of corses which his sword hath slain?
Goodness and greatness are not means, but ends.
Hath he not always treasures, always friends,
The good great man? Three treasures—love and light,
And calm thoughts, equable as infant's breath;
And three fast friends, more sure than day or night—
Himself, his Maker, and the Angel Death."

Gentlemen of the Faculty, I have thus endeavored to discharge the assigned duty to the memory of our illustrious confrere. Such a career as his, filled as it was with brilliant and almost unceasing labors, could scarcely have justice done to it in the brief space of time allotted to me. But the sketch of such an exemplar as he was may fire the hearts of some of the young men among us to imitate his bright example—to attempt to be as earnest, as industrious, as conscientious and as laborious as he was in every line of duty. May each and all remember that, in the language of Milton: "He alone is worthy the appellation of

greatness who does great things, or teaches how they may be done, or describes them with a suitable majesty when they have been done; but those only are great things which tend to render life more happy, which increase the innocent enjoyments and comforts of existence, or which pave the way to a state of future bliss more permanent and more pure." Such, in a pre-eminent degree, was the life, such the labors of the man whose memory we honor to-day, whose departure from us we deeply deplore. In all your thoughts, in all your acts, remember—

“ Were not the eye itself a sun, no sun for it could ever shine ;
By nothing noble could the heart be won, were not the heart divine.”

THE AMERICAN PRACTITIONER.

MAY, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

PULMONARY CONSUMPTION.*

BY GHISLANI DURANT, M. D., PH. D.

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ARTHRITIC PHTHISIS.

While, in the preceding varieties, we have seen that the attention is directed, on account of functional disturbance, especially to the nervous, serous or lymphatic systems, in arthritic phthisis the circulatory seems to be chiefly at fault. That rheumatism, or that condition of the system the effects of which we so name, can be a cause of pulmonary inflammations, has long been recognized and described.

According to Portal,† the abnormal element or elements, which give rise to the two so similar diseases, gout and rheumatism, may select any portion of the body as the seat of its

* Concluded from April No., p. 216.

† Portal. Sur la Nature et le Traitement de la Phthisie Pulmonaire.

manifestations, and there is no organ more frequently attacked than the lungs. Pathologists, among whom we may mention Selle, Quarin, and especially Gintrac,* give gout as a very common cause of phthisis. Many authors—Musgrave, Sydenham, Barthez, Franck, Trousseau—believed in the existence of an arthritic pneumonia; but, according to Gigot-Suard,† if this inflammation of the lungs be sometimes produced, it is of infinitely rare occurrence, compared with the subinflammations, which, notwithstanding their frequency, are seldom recognized or spoken of, even to-day.

“Often,” says that author, “I have had occasion to observe the congestive subinflammation of the lungs in spontaneous uricuria; and I have noticed that its symptomatic expression corresponded to the lesions which I produced in the experimental uricæmia. Thus, the form which I call dry, because the hyperæmia rarely exists, presents the typical characteristics attributed by pathologists to simple pulmonary congestion—relative dullness, slight vesicular murmur, prolonged expiration, heard especially at the apex of the lung, and sometimes an unsteady or jerky respiration, resonance of the voice, dry râles, and crepitation.

“If the hyperæmia be accompanied by the formation of an exudation, a sanguineous infiltration, or a bronchitis, then the stethoscopic signs will vary, and the modified respiratory murmur will be accompanied by mucous or submucous râles, and even a more or less decided bronchial respiration.

“When superficial subcrepitant râles, unmixed with equally superficial bubblings exist, it is very probable, if not certain, that the corresponding portion of the pleura is hyperæmic.

“This is not by any means a rare complication of the congestive subinflammation of the lung, caused by gout or rheumatism; and sometimes even the hyperæmia is so great that the crepitant râle, ordinarily heard, may be replaced by a crackling (*cuir neuf*) sound, indicative of dry inflammation of the pleura.”

* Gintrac. Cours Théorique et Clinique de Pathologie Interne, tome i, p. 371.

† Gigot-Suard; l'Uricémie. Paris, 1875, p. 229.

And, finally, the extravasation of blood into the tissue of the lung (pneumo-hemorrhagic of Gendrin) may be sufficient to produce pulmonary apoplexy, or a most violent hemoptysis.

The same author states that phthisis is one of the most frequent ultimate effects of gout or rheumatism, the free uric acid existing in those diseases being the cause of that affection, by causing congestive subinflammation of the lungs, and often inflammation of the bronchi, which, in turn, since they are vegetative, may give rise to epithelial products or neoplasms of a fibrous, pus-like, or tuberculous nature. These new growths are in themselves irritants; and situated as they are in tissues already inflamed and tending to disorganization, induce new inflammatory processes and growths, and so not only keep up but hurry on the destruction of the lungs. And if the state of the lung be favorable for the development of these degenerating neoplasms, whether this condition be dependent upon a hereditary or acquired diathesis, then these growths become of a still lower organization (caseous), and, deposited in various parts of the lung, carry death with them.

In the nervous disorders of sensibility and movement, already recognized as depending upon an arthritic or herpetic diathesis, accompanying pulmonary tuberculization, Pidoux* has pointed out a peculiar fever due to excessive dilatation of the blood-vessels. This fever does not properly belong to tuberculosis, is not its special fever, and consequently shows that another cause of febrile disturbance exists in the economy.

In this case, the incipient pulmonary tuberculosis produces several of its rational symptoms, cough, dyspnoea, fever, etc.; but the organism, affected by a morbid irritability, or a herpetic erethismus, impresses upon these symptoms its peculiar characteristics. For example, the fever instead of behaving as when it is simple, and representing only disturbance and irritation of the circulatory apparatus, now manifests itself by a full, irregular, rapid pulse, with or without febrile heat, during the day, as a fever due to over-distension of the blood-vessels, a true arterial spasm, of which the sufferer has no

* Pidoux. *Etudes Générales et Pratiques sur la Phthisie*, p. 302. 1874.

consciousness. A true nervous cardio-pathia, if it may be so termed, is the cause of the fever, and is recognized by the palpitation, which is sometimes very marked and accompanied by a metallic bruit, and such strong contraction that the "souffles nerveux" can not be produced. The patients are very irritable; their speech, like their movements, is short and abrupt, the cough is short, dry and frequent, but without paroxysm.

This fever, judging from its symptoms so much more severe than the true hectic fever, is however less grave, and the prognosis far more favorable, as it manifests less beginning of the wasting and of the tuberculosis than it does cardiac-vascular irritation, produced by another affection of the organism.

The principal distinguishing signs of arthritic phthisis given by Pidoux, are the slowness of its development, and the want of relation between the condition of the pulmonary organs and the state of the patient. These are, however, as we have already seen, characteristics of any form of accidental phthisis.

Besides these, however, it has, in common with gout and rheumatism, certain symptoms, such as hemicrania, hemorrhoids, and excessive deposit of urates. And it is only by a very careful consideration and comparison of the common characteristics of these diseases—gout, rheumatism, phthisis—that the differential diagnosis can be made between this and other forms of accidental phthisis.

As to treatment, naturally it is that of accidental inflammatory phthisis, conjoined with or modified by that of gout or rheumatism. Careful attention to hygienic measures, the use of warm or hot baths, of mineral waters, such as Vichy, and the preparations of colchicum, are called for.

While presenting, as we have done, the general forms which pulmonary phthisis most often assumes, we have endeavored to separate the one from the other. In practice, however, we must not expect to meet them so clearly defined. There will always be a great number of cases, in which, from lack of sufficient data to form a positive diagnosis, the genius of the physician, or his medical tact, must decide. The fact which

we regarded as most important, and which we endeavored to point out, was, that in phthisis there were a great variety of pathological elements and morbid local products which, though intimately united, were yet separate and distinct. In the language of the learned phthisiologist, Pidoux, neither anterior nor posterior to each other, pulmonary phthisis and tubercle are like life and organization, the same thing viewed from two aspects. Neither a purely local nor a purely general disease, it is both general and local at the same time, but almost always with a relative predominance, more or less marked, of the one or the other series of alterations; in some cases the result of a diathesis, in others acquired, and accidental in many. Yet all varieties of phthisical lesions are identified by their common consumptive nature, their tendency to degenerate and decay, and to ultimately present the same common symptoms.

SYMPTOMS.

The presumptive existence of tubercle may frequently be inferred from the general aspect and condition of the patient, the rational or vital as well as the physical signs. Both these classes of indications, however, are occasionally uncertain, and hence are best combined. The aspect of a patient laboring under phthisis is, indeed, quite peculiar. The disease is seen, more or less, in the gait, countenance, expression, complexion, voice, cough, respiration, the streaky gums, the incurvated nails, the clubbed finger-ends, the habitual quickened pulse and respiration, the expectoration, whether hemorrhagic, purulent or even tuberculous, the chest's diminished air capacity, the sweating, diarrhœa and hectic, the loss of weight, muscular firmness and muscular strength. (MacCormac.)

Numerous and able inquirers, both in this and other countries, have made the physical signs of phthisis their peculiar care. (Flint, Clark, Loomis, Leaming, Cotton, Graves, etc.)

I shall only consider here the most prominent symptoms, without reference to the order of their occurrence.

Cough is one of the most important complications which the physician is called upon to relieve. It generally appears

at the very onset of the disease, and is paroxysmal in character, often being so severe as to determine vomiting and almost to suffocate the sufferer. In some exceptional cases it appears during the first stage, then ceases for a time, only to reappear in the latter part of the second. It is especially troublesome at night, and, by causing insomnia, greatly weakens the patient. It may be stated, as a general rule, that the intensity of the disease and that of the cough are directly proportional to each other.

The cough in phthisis is of two kinds, which differ entirely as regards their nature, and which we must distinguish carefully, on account of the different therapeutical indications which they present.* One of them, sonorous, deep-toned and moist, is formed by alternate long inspirations and expirations. It commonly occurs shortly after arising, when the bronchi, the benumbing effect of sleep having passed away, begin to regain their sensibility. This cough is beneficial to the patient, since it leads to the expulsion of that material, which if allowed to remain in the bronchi might increase the dyspnœa. Sometimes it is even necessary to induce the expectoration. But when this becomes too profuse, it may be necessary to diminish it, and the most satisfactory results will be obtained from the use of balsam and the sulphites.

The second variety, the *tussis firma* of Graves, which may be called a spasmodic cough, is a useless expenditure of energy on the part of the sufferer. It weakens him, induces congestion of the lungs, deprives him of sleep, and brings on profound sweats. It is short, hard, dry, and convulsive in character. If the cough lasts for any considerable length of time, the expiratory muscles become fatigued, and no longer permit the sufferer to cough, although it may still be necessary. Sometimes very painful points appear in various parts of the thorax and abdomen. Each paroxysm of coughing subjects the lungs to the action of two forces—one active, the other almost passive. These organs are thus subjected to a

* G. Durant, On the Cause, Prevention and Cure of Tuberculous Phthisis, Prize Essay. 1871.

greater or less degree of compression, and this, in turn, influences the circulation in the vessels of the pulmonary parenchyma. The blood, by this compression, is forced out of the capillaries and veins of the lungs, and finally into those of the neck, face, etc., thus causing redness, swelling, etc., of those parts.

According to Foussagrives, the causes of this cough are as follows: First, an abnormally dry condition of the mucous membrane; second, a viscous condition of the mucus itself, which causes it to adhere firmly, and thus prevents it being removed by coughing; third, an abnormally increased sensibility of the integument to the impression of cold; fourth, an irritated condition or impressionability of the muscles of Reissenssen, which is aggravated by the near proximity of tuberculous deposits.

Expectoration.—There is more or less bronchitis in all phthisis, but in some the early history is completely that of bronchial catarrh. The expectoration is often abundant, with various degrees of frothiness and viscidty, and contains chiefly water, with saline matter, and more or less hyaline mucus, and is generally more copious in the morning. Let us here remark with Graves, that although a person may cough violently during his sleep, he never expectorates. Expectoration is accomplished by the attention being directed to the chest, by an act of volition being put in force, so as to cause a constriction of the bronchial tubes, and generate a current of air of sufficient strength to expel the mucus. To effect this, the mere act of coughing is not sufficient, and consequently *we do not expectorate during sleep*; for this purpose it is necessary for the patient to be awake.

As the disease progresses streaks of blood, with numerous epithelial cells, ciliated and pavement, from the bronchial membrane, are found in the expectoration, telling of bronchopneumonia. Sometimes this opaque appearance of the expectoration is attended with a diminution of the bronchial irritation. When cavities have formed, the expectoration changes. It appears in rounded masses of a grayish color;

these, when thrown into a cup, will remain separated from each other. If there be any doubt as to the existence of a cavity, a microscopic examination should be made.

Pain in the chest.—Tuberculosis itself produces no pain; the pain in the chest experienced by sufferers from phthisis, whether it be in the neighborhood of the scapulæ and clavicles, or at other points of the chest, is without doubt due to localized pleurisies, or to intercostal neuralgia. If the pain be due to a pleuritic attack, the application of a few leeches, or of a soft cerate containing two parts of the ceratum saponis and one of the unguentum hydrargyri fortius cum camphora, or the extract of belladonna, should be tried. If the pain is neuralgic in its origin, apply a blister containing morphia.

Dyspnœa.—This trouble ordinarily begins to manifest itself about the time the cough commences to annoy the patient, by a feeling of oppression in the middle portion of the chest, though the difficulty of respiration is generally more marked on one side than on the other. The treatment of this complication varies with its causes, which, sometimes combined, sometimes aiding singly, may be enumerated:

1st. As the fever of phthisis is due to the rapid molecular metamorphosis that is going on in the body, there is consequently an extra amount of carbonic acid formed, and an extra amount of oxygen required, and the respiration must necessarily be increased to supply the demand. (Loomis, p. 239.)

2d. The infiltration of the lung by tubercular matter, and the diminution of the field in which hematosis takes place.

3d. The temporary or permanent congestion which the presence of the morbid products in the lung develops.

4th. The plasmatic obliteration or induration of the peritubercular pulmonary vessels.

5th. The emphysematous condition which is so prevalent in those suffering from phthisis, and especially in those who are troubled by cough. The emphysema does not, in this class of patients, constitute a supplementary collateral respiration, but is a new cause of dyspnœa.

6th. A very abundant secretion, especially when the weakened expiratory forces are unable to carry on expiration.

7th. The disturbance of the equilibrium which should exist between the amount of blood sent into the lung by the right heart, and the quantity of permeable tissue which it is to transverse. This form of dyspnœa, which is accompanied by an accelerated pulse, and palpitation of the heart consequent upon the least exertion, is due rather to cardiac than to pulmonary trouble, and is easy of recognition. (Foussagrives.)

8th. It may be due also to anemia, cyanosis, fatty degeneration of the cardiac muscles, and to increased irritability, and this in many cases without pleuritis or extended destruction. (Buhl, p. 157.)

Dyspnœa is best relieved, if coming on suddenly, by spir. ætheris and liq. ammoniæ, or by the inhalation of oxygen; if of a more chronic kind, by a combination of chlorate of potash and nitric acid.

Hemoptysis.—A knowledge of the relations sustained by the bronchi to the pulmonary and bronchial vessels, gives an explanation of the manner in which hemoptysis takes place. The pulmonary arteries and veins accompany the smaller bronchi. That a communication exists between all these is shown by the fact that almost all injections, although only a moderate degree of force is employed, may, with the greatest ease, be made to pass from the arteries into the pulmonary veins and bronchi, the inflamed parts alone seeming impermeable. Injections into the bronchi or into the pulmonary veins, although the latter do not contain valves, can not be forced into the arteries, neither can they be forced from the bronchi into the veins. That the bronchial arteries and veins communicate with the pulmonary vessels is proved beyond question by the experiments of Haller, Reissenssen and Boyer. These facts being premised, together with the knowledge that around deposits of tubercle new vessels are always found, it follows that, since the sanguineous congestion around such a diseased mass must be very intense, the capillaries will become distended beyond their power of resistance, and the blood will find a passage into the bronchi, and thus constitute hemoptysis. When it is not so profuse as to threaten imme-

diate danger, or such as weakens the patient very much, it is to be regarded as beneficial, since it unloads the congested vessels, and in this way prevents for a time further inflammatory action, by removing the congested state by which it had been occasioned. There is also a possibility that it prevents, for a time, the further deposit of tubercle. Who has not noticed, in patients suffering from phthisis, the great relief which followed a slight attack of hemoptysis? Hence we must refrain from interfering, as long as the hemoptysis preserves the character of an active hemorrhage, and the pulse, heat of body, color of face, and the amount of dyspnœa, indicate that the hemorrhagic molimen is not completely checked. If all signs of congestion cease with the termination of the hemorrhage, there will only remain to the physician to take measures to guard against the return of such congestion; while if, although the hemoptysis has ceased, active inflammatory action still continues, then revulsive treatment, applied to parts distant as possible from the seat of the inflammation, such as blisters upon the lower extremities, leeches to the malleoli, etc., will be indicated. It is only when the hemorrhage has assumed such proportions that the life of the patient is endangered, that the physician should take prompt measures for its suppression.

Hemoptysis may be dependent upon another cause, viz., extensive destruction of pulmonary tissue and ulceration of vessels, which have not been obliterated. This variety may be considered to be traumatic in its origin, and as subserving no good purpose. If possible, it should be stopped at its very onset. Absolute rest, acidulated drinks, rhatany, ergot, tannin, ferric chloride, etc., are the agents upon which reliance is to be placed, and the dose given should be proportioned to the intensity of the hemoptysis.

How are we to distinguish between these two varieties of hemoptysis? In the first variety there exists an inflammatory molimen, of which the patient, anxious as regards the condition of his lungs, has perfect cognizance. It also betrays its presence by exterior signs. In the second variety this inflam-

matory condition is absent, and the trouble manifests itself suddenly and violently.

While we regard hemoptysis as an effect of the presence of tubercles in the lung, Niemeyer makes it the cause.* It is true, it is not an easy matter to determine what he really wishes to establish; for, after denying "the existence of any genetical connection between the hemorrhage and the disease of the pulmonary tissue," he proceeds to say that "hemorrhages of the bronchial mucous membrane precede the development of a pulmonary phthisis, and stand in direct genetical connection with it" (p. 67).

Fever is the criterion by which the physician judges in phthisis. Neither the diagnosis nor the treatment is possible without a consideration of this symptom, around which all others are grouped, and upon which are based all indications. Hectic fever is far more often and more strongly perceived by the physician than by the patient; the latter, indeed, is often aware of only a vague feverish feeling. Among the signs of this fever may be mentioned its exacerbation in the evening and remission in the morning, in which it differs from acute fevers, which linger into the day. In this form, on the contrary, the heat in the morning will usually be found below the normal degree; with this, there is a frequent and feeble pulse, which lasts until the evening paroxysm sets in, and which is one of the most characteristic signs of hectic fever.

After a short time, the febrile stage is ushered in by more or less marked rigors, and, following this, diarrhœa and night-sweats make their appearance, thus confirming the diagnosis.

The shivering state may occur once or twice daily. When it takes the latter form, the first attack usually begins before noon, and is marked by paleness of the hands with livid nails; the face seems suddenly to grow thin, and to assume a leaden tint; while the eyes, before brilliant, are now dull and expressionless. This morning attack is always more painful and more dreaded by the patient than the evening one, though the

* Niemeyer on Pulmonary Phthisis. New York: William Wood. 1868, pp. 67, 68.

latter is thermometrically the more intense. Thermometrical observation discloses the seeming paradox that the actual temperature is lower during the hot than the cold stage.

Sydney Ringer, who has done much to popularize the use of this most valuable auxiliary—the thermometer—says, that in order to insure correctness in the observations, the following conditions must be fulfilled:

1st. That the patient should be in bed, otherwise the temperature of the surface would be much below that of the internal organs.

2d. That the patient be in bed at least one hour before the observations are made, since that time is necessary for the surface of the body to regain the heat lost by previous exposure.

3d. The position of the person examined should be such that the anterior and posterior edges of the axilla are relaxed, for otherwise a cup-shaped cavity is formed, in which the thermometer moves freely, without being in contact with its walls. This occurs especially in emaciated persons.

4th. The temperature should be taken twice daily, say at eight in the morning and eight in the evening. If but one observation is possible, then the evening should be preferred, since the morning temperature, abnormal though it may be, rises in the evening.

5th. The thermometer should remain in the axilla at least five minutes.

The author's conclusions are:

1st. That in all cases where tubercle is deposited in any organ, there is probably a continued elevation of the temperature of the whole body.

2d. The elevation of the temperature is probably due, rather to the general condition, tuberculosis, than to the special deposit of tubercle, tuberculization.

3d. The temperature may be taken as a measure of the degree to which tuberculosis and tuberculization have advanced, and its variations as indicating a corresponding variation in the gravity of the malady.

4th. That the temperature is a better indication of the

degree which tuberculosis and tuberculization have reached than any other physical sign or symptom.

5th. By means of the temperature we may discover tuberculosis and tuberculization long before any other physical sign gives notice, or when the other symptoms are as yet insufficient to guide our diagnosis, or there is not as yet any other physical sign denoting a tuberculous deposit in any organ.

6th. It is very probable that we may yet, by the temperature alone, be able to decide when the tuberculous deposit has ceased, and whether the existing physical signs are due to previously deposited tubercles, or to chronic thickening of the pulmonary tissue between the tuberculous deposits.

The observations upon which the above conclusions were based are far too numerous and lengthy to be reproduced here.*

In the treatment of hectic fever, our remedies must be directed as well to its inflammatory cause as to fever itself, since to pursue the latter course would be to institute a doubtful and inefficient medication. Probably the most reliable antipyretic remedy we possess is cinchona, or some of its alkaloids. How its effect upon the fever following the softening of tubercles is produced, has not as far as we know been explained, but is nevertheless incontestable.

The pulse.—Generally there is a relation between the temperature and the pulse; the latter is always feeble, and ranges from one hundred to one hundred and forty per minute. In the earlier stages of the disease, the excitability is often its most striking characteristic.

When a frequent and feeble pulse is accompanied by a febrile condition, marked by periods of exacerbation and remission, the second period, a period of deliquescence and of tuberculous suppuration, is indicated.

* We refer the reader to—

Sydney Ringer, on the Temperature of the Body as a Means of Diagnosis in Phthisis and Tuberculosis. London, 1865.

Guichard. Recherches sur la Température du Corps dans la Phthisie Pulmonaire. Paris, 1866.

Bilhaut. Etude sur la Température dans la Phthisie Pulmonaire. Paris, 1872.

In tubercular phthisis, the pulse most markedly increases in frequency: in fibrous phthisis, usually it is nearly normal, rarely reaching one hundred per minute.

In the last stage of catarrhal or tubercular phthisis, the pulse becomes very rapid and feeble. (Loomis.)

Colliquative sweats.—It is almost needless to say that the night-sweats of phthisis appear only when softening and suppuration have taken place, and belong, therefore, to the second and third stages of the disease. It is then an almost constant symptom. It happens very often that the diarrhœa and night-sweats supplement each other, *i. e.*, one attacks the patient for a time, and then subsiding gives way to the other. Both, however, whether they alternate or exist simultaneously, produce very disastrous effects, destroying as they do the strength of the patient, and producing the last degree of marasmus. It is during the morning hours, just before the awakening, that the patient is most troubled by these sweats, so that when he awakes he finds himself almost invariably bathed in a profuse perspiration. It begins at the head, and gradually extending downwards finally embraces the whole body. It is rare to find them restricted to a single part.

Against this almost inseparable accompaniment of the last stages of phthisis, an almost endless number of remedies have been proposed. Among those whose efficacy has been proved, are tannin and the tannate of quinia, zinc oxide, and Dover's powder.

Emaciation.—This symptom, from which the malady obtains its name, is, in those of a tuberculous diathesis, a most serious danger. According to Bennett, the absolute quantity of blood is diminished in the phthisicals, who grow very thin, and this too notwithstanding that the digestive powers remain unimpaired. This is due to a diminished production of chyle in the lacteals, and of lymph throughout the economy, and as a result a diminution of the number of leucocytes or white blood globules, and an absorption of the fat of the adipose tissues, in order that it may be converted into blood. Thus the formative elements of the blood are no longer derived

from the food, or rather are not assimilated in sufficient quantity. To remove when possible the cause of the emaciation, and to institute a hygiene, such that the amount of nutritive material deposited in the tissues shall exceed the loss, is of course our aim.

Diarrhœa.—Often, in the beginning of phthisis, this is due to a hyperemic condition of the intestines, which is susceptible of cure; but later on, when it is owing to ulceration of the mucous membrane, caused by a deposit of tuberculous matter therein, it is not so amenable to treatment. This, however, should be persevered with, and if a cure can not be effected, yet the condition of the patient can be greatly improved. In this complication, the English seem to place great reliance upon the aqua calcis given in milk. According to Bichat, the subnitrate of bismuth lessens the amount of local irritation which the fluid contents of the intestine exert upon its sensitive membrane, and thus diminishes the tendency to peristaltic action. Opiates should only be given in the form of rectal suppositories, and even then in small doses, so that no sudorific effect will be produced, as they generally diminish the appetite. However, benefit is often obtained from injections of vinum or tinctura opii, as they not only stop the diarrhœa but often increase the strength.

We must also mention, as complications which may arise during the progress of consumption, arrest of menstruation, œdema of the feet and legs, cerebral disturbances, and laryngeal complications, which are always to be regarded as unfavorable symptoms.

In giving the various forms of phthisis, and the symptoms pertaining thereto, we have already pointed out the therapeutical indication. Daily we hear of new remedies for the cure of pulmonary consumption, rendering more forcible still the sentence of Bacon—*medicamentorum varietas, ignorantie filia est*. Among those medications there is evidently a choice to be made, according to the symptoms, age, sex, constitution, idiosyncrasy, etc., remembering always that “the efficacy of remedies depends on their application.” (Bacon.)

CASE OF ACUTE INVERSION OF THE UTERUS.

BY J. R. WEIST, M. D.

On the 9th of June, 1877, I was called to see Mrs. T. in consultation with Dr. G. From the doctor I received the following history of the patient:

"Mrs. T. is forty-two years old and the mother of eleven children. I saw her two weeks since, because of a severe uterine hemorrhage; she said she was two months pregnant; simple remedies arrested the bleeding at that time. Five days later I saw her again. I was informed that the fetus and placenta had been delivered the night before, after much pain and great hemorrhage: I did not see either. I questioned the patient closely, and she insisted 'that everything had passed away, as she had examined the fetus and after-birth, and could not be mistaken.' I did not make a vaginal examination. Slight hemorrhage continued almost constantly for two days, when I was summoned because of its return in a very alarming manner. At this time I examined the vagina and found this cavity entirely filled by some kind of a spongy body, the nature of which I could not determine. I gave ergot and stimulants, and ordered a vaginal injection of dilute solution of persulphate of iron. The violence of the hemorrhage was arrested, to return every one or two days until the present time. The same treatment has been continued."

A few hours before my arrival a most dangerous hemorrhage had taken place; the patient had fainted repeatedly.

I found Mrs. T. well developed physically, almost pulseless, with cold extremities, and great pallor of face. She repeated her statement that "she knew the after-birth had been delivered with the fetus ten days before."

On examination I found the entrance to the vagina filled with a mass of rags, that had been saturated with the iron solution and placed there to arrest the bleeding; these were removed with a quantity of firmly coagulated blood from the vagina. While getting this away, my finger encountered a

substance of different character; removing and examining a fragment of this, I discovered that I was dealing with a placenta. On stating the fact, the patient grew quite indignant, declaring that I was mistaken; that she "had had eleven children and could not be deceived." Further investigation disclosed the true nature of the case: the placenta was firmly adherent to the completely inverted uterus—the only case of adherent placenta I have seen in twenty years' practice.

I proceeded at once to separate the placenta from the uterus—a work of some difficulty, so firm was the adhesion. The separation was attended with free hemorrhage. After removal of the placenta, I found that pressure with my finger upon the fundus caused a dimpling that promised success. Having no other instrument at hand, I caused my placental forceps to be wrapped with several thicknesses of old muslin; this covering being well anointed with lard, the end of the instrument was made to take the place of my finger; then a little pressure, continued perhaps for two or three minutes, was sufficient to restore the inverted organ to its normal position. After a few minutes the instrument was removed, the uterus remained in position, and the hemorrhage ceased.

When the operation was finished, the patient seemed on the verge of death; she soon rallied, however, and recovered without a serious symptom.

The placenta presented no sign of decomposition, and indicated that gestation had reached the end of the fourth month. The cord had been torn from its placental attachment; therefore, it is probable that the inversion was produced by undue traction on the cord. The duration of the inversion can not be fixed with absolute precision; according to the patient's statement, it was ten days. The testimony of Dr. G., based on personal examination, makes it certain that the inversion existed for at least eight days.

As Dr. J. C. Reeve remarks, in his report of an interesting case of inversion of the uterus in the August number of the *American Practitioner*, cases of this accident are rare. Yet the statistics of the great Rotunda Hospital, showing only one

case in 190,800 deliveries, can hardly be accepted as proving a like unfrequency of the accident in general practice; for it is not in the practice of the masters of the obstetric art, but in that of the inexperienced and ignorant, that it is most likely to occur. While spontaneous inversion may take place, I think we will be very nearly correct if we adopt the opinion of Dr. Robert Lee, of London, who says:—"Inversion of the uterus is frequently, if not invariably, the consequence of pulling at the umbilical cord, to extract the placenta immediately after the birth of the child, before the uterus has had time to contract, and while the placenta is still adherent."*

RICHMOND, IND.

GONORRHŒAL INFLAMMATION OF THE PROSTATE.

BY F. J. BUMSTEAD, M. D.

*Late Professor of Venereal Diseases at the College of Physicians and Surgeons,
New York.*

ACUTE PROSTATITIS.

Acute prostatitis may be due to violence from sounds, catheters, or lithotripsy instruments; to the application of caustics to the deeper portions of the urethra; to stricture, the irritation of a stone in the bladder, or a fragment of a stone impacted in the prostatic urethra; to immoderate coitus, or excessive purgation; yet by far the most frequent cause is urethral gonorrhœa.

Gonorrhœal prostatitis owes its origin to the extension of the inflammation from the urethral walls to the substance of the prostate gland; it occurs, therefore, at a time when the disease has invaded the deeper portions of the canal, and is consequently rare during the first two weeks, resembling in this respect its more frequent congener, gonorrhœal epididy-

* Lectures on the Theory and Practice of Midwifery.

mitis. The accessory causes of the last mentioned disease, viz., highly irritant injections, forcible distention of the urethra in using a syringe, excessive exercise, alcoholic stimulants, exposure to cold and wet, and venery, may also contribute to the production of prostatitis. There is little ground for believing that this affection is occasioned by the use of copaiba and cubebs, although the contrary has been asserted.

If we inquire into the pathology of this affection, we shall find that the first effect of the gonorrhœal inflammation was exercised upon the mucous membrane of the prostatic urethra, and upon the underlying cellular tissue surrounding the gland. In this manner the size of the organ is increased; it encroaches upon the urethra and interferes with the passage of the urine; it may be felt to be of unusual dimensions by examination *per anum*, when its sensitiveness will also be noticed. The inflammation next involves the prostatic follicles, whose secretion is thereby increased and takes the place in a great measure of the urethral discharge from the meatus, which diminishes or entirely disappears on the occurrence of the prostatitis. The prostatic secretion is readily recognized by its thin, viscid, white-of-an-egg like character.

If the inflammation proceed to the suppurative stage, a number of these follicles, or perhaps all of them, become filled with pus distending their walls, and as many little abscesses are formed as there are follicles involved, which may subsequently coalesce and unite into one single abscess, with dimensions corresponding to the greater or less amount of the organ invaded. There is never, then, at the outset one abscess of considerable size. Such occurs only by the coalescence of a number of small ones seated in the follicles. Meanwhile, the muscular tissue, which constitutes so large a portion of the prostatic gland, is unaffected, except that it is in a constant state of contraction, thereby inducing urethral and rectal tenesmus.

The prostate is most intimately related anatomically with the urethra, and it is into this passage, therefore, that an abscess most frequently breaks, sometimes by one, sometimes

by several openings. If only a portion of the organ has been involved, the remainder may retain its integrity; the entrance of urine into the cavity does not appear to be attended with the evil consequences which have been feared. The evacuation and closure of the abscess leaves a cicatrix, and the function of the gland may eventually be unimpaired. It will be observed that under these circumstances—a prostatic abscess opening only into the urethra—that the abscess is confined within the fibrous capsule of the gland, and is from first to last strictly *intra-prostatic*.

Far otherwise is it when the abscess breaks in any other direction, for then the surrounding cellular tissue is infiltrated; and we have besides an *intra-prostatic* a *peri-prostatic* abscess, capable of much greater mischief than the former. But of this more anon.

Symptoms.—The earliest symptom of an attack of prostatitis is commonly a sensation of weight or a dull pain in the perineum. There is not that vesical tenesmus which we find in cystitis, but the exit of the urine is obstructed by the swollen gland, and the calls to micturate will be frequent and urgent simply because the bladder is never fully emptied of its contents, and a short time suffices to fill it to distention. The stream is generally quite small, is only forced out by prolonged straining, and excites a severe scalding sensation in the deeper portion of the canal. Complete retention of urine often occurs, requiring the use of the catheter. The bowels are commonly constipated, although the patient is constantly led by a feeling of fullness in the rectum to make fruitless efforts at stool; and should defecation take place, the act excites severe pain. The system at large sympathizes with the local trouble, and general febrile excitement ensues. Exploration of the prostate by the finger in the rectum reveals abnormal sensibility, increase of temperature, and tumefaction of this organ proportioned to the severity of the disease. On attempting to introduce a catheter, it meets with an obstruction in the prostatic urethra, and, before entering the bladder, its point deviates to one side or the other in an op-

posite direction from the lobe of the organ involved. If the middle portion of the prostate is the chief seat of the inflammation, the introduction of a catheter may be impossible or only effected by force. Both rectal and urethral exploration are attended with extreme suffering to the patient.

A majority of cases of acute prostatitis terminate in resolution; the minority in suppuration. The formation of matter is not always announced by well marked symptoms, but may be strongly suspected if, after the disease has been increasing in intensity for eight or ten days, the patient is seized with repeated chills followed by fever and general depression. It is possible, however, for an abscess to form without affording the least reason to suspect it. A case occurred at St. George's Hospital, under the care of Dr. Pitman, in which prostatitis supervened upon an attack of gonorrhœa, and terminated in suppuration and death of the patient, with entire absence of rigors and the ordinary symptoms of abscess. At the post mortem examination, an extensive abscess, which had not been suspected during life, was found between the bladder and rectum.*

If the abscess be deeply seated in the gland, tending to point towards the rectum, a soft fluctuating tumor can be felt in the region of the prostate by the finger introduced into the gut, especially if the gland be immovably fixed by a sound in the urethra. An abscess in the neighborhood of the urethra is more difficult of detection, except from its encroachment upon the canal, and its interference with the exit of urine and the introduction of a catheter.

A prostatic abscess most frequently breaks upon the side of the urethra during the efforts of the patient to expel the urine or feces, or it is often perforated by the point of an instrument introduced for the purpose of exploration or catheterization. With the bursting of the abscess, the patient experiences delightful relief from his sufferings; his urine once more flows naturally, and his febrile symptoms soon disappear.

* London Lancet, Am. ed., January, 1861, p. 69.

In those cases before referred to, in which the rupture takes place in another direction than the urethral, the point of exit of the matter varies. Sometimes it opens into the bladder, probably when the peri-prostatic abscess is seated chiefly above and behind the prostate. Its escape into the rectum is, however, more frequent; and although this event is much less favorable than a urethral opening, since it allows of the entrance of fecal matter from the gut, and although a rectal fistula may remain for some time, yet the latter accident is rare, and these cases usually turn out well in the end. Sometimes communication is established both with the bladder and rectum, forming a recto-vesical fistula, in which case the urine may trickle into the rectum on each act of micturition, and, if the patient is troubled with flatus, the "wind" may be heard gurgling through the urine contained in the bladder.

But, having gained access to the ischio-rectal fossa, these abscesses may make their way in various directions and appear on the surface at points far distant from the seat of their origin. Thus the matter may point in the perineum, or extend to the scrotum, and even to the sheath of the penis. Guyon reports one case in which the abscess pointed in the left thigh, and another just below the false ribs. I had a case in which prostatitis was set up by the introduction of a sound for seminal emissions, and fistulous openings formed in the perineum and just below the groin. The patient ultimately recovered, married, and had children. Béraud* cites a case in which the pus followed the course of the vas deferens and appeared in the inguinal fold.

Diagnosis.—Acute prostatitis is chiefly liable to be confounded with cystitis. It is not likely that any one would confound prostatitis with inflammation of Cowper's glands, which presents such different characters.

Treatment.—The appearance, during an attack of gonorrhœa, of symptoms of prostatitis, should lead the surgeon at once to abandon the use of injections, and, neglecting the urethral discharge for a time, to direct his whole attention to

* Mal. de la Prostate, Thèse, 1857.

the more serious affection which has supervened. The patient should now observe the most perfect rest and quietude. If the symptoms be at all severe, from six to a dozen leeches may be applied to the perineum, and be followed by a hot bath at the temperature of one hundred degrees, which may be repeated with benefit several times in the twenty-four hours. It is very doubtful, however, whether any decided benefit ensues from the application of leeches either to the perineum or within the rectum, as recommended by some authors. In the intervals of the baths, the perineum should be covered with hot fomentations or poultices.

Internally we may resort to those remedies, as the salts of potash and soda, which are supposed to render the urine more dilute and mild in its character. A mixture of mucilage, bicarbonate of potash and hyoscyamus, is well adapted for the treatment of the disease we are now considering. The diet should be light, consisting of gruel, mucilaginous drinks, milk and farinaceous substances, at least in the early stages of the disease; at a more advanced period, and after suppuration has taken place, our utmost efforts may be required to sustain the strength of the patient by a nourishing diet and even tonics. The bowels should be opened daily either by warm enemata or by a dose of castor oil.

Sleep should be secured by the exhibition of a Dover's powder at night. Mr. Adams speaks highly of warm enemata, consisting of four or five ounces of simple water or gruel, administered at bedtime, which are said to afford comfort to the patient, and to act as a fomentation to the inflamed gland.

Complete retention of urine will require evacuation of the bladder by means of a flexible catheter, or pneumatic aspiration above the pubes. When an abscess has formed and fluctuation can be distinctly felt by the finger in the rectum, it should be punctured through the intestinal wall. Tarnowski prefers to make a careful opening from the perineum, so as to avoid communication with the rectum and the entrance of fecal matter into the cavity of the abscess. Diday also favors

an opening in this situation. When the collection of matter is most prominent towards the urethra, it may sometimes be opened by a conical sound introduced as far as the prostatic portion of the canal, while a finger within the rectum presses the tumor against the point of the instrument. This attempt, however, is by no means free from danger, and should never be made, unless the symptoms are urgent and the existence of matter in the neighborhood of the urethra is highly probable.

When the abscess has opened into the rectum, warm water should be injected after each passage of the stools, so as to remove any fecal matter which may have lodged in the fistula, and also to favor the exit of the puriform secretion.

Mr. Milton treats prostatitis by the free application of water, as hot as it can be borne, to the perineum; orders tartar emetic in large doses, or, if the patient object to this, small doses of calomel or hydrargyrum cum cretâ, a sedative every night, rest in bed, and very light diet. He believes in the administration of the iodide of potassium to get rid of any hardness remaining after the acute attack.

I may mention that iodoform, given internally or in form of suppository, is also used for the same purpose.

CHRONIC PROSTATITIS.

An acute attack of prostatitis may subside into a chronic form, or the latter may first appear in the course of a case of gleet, or as a result of onanism, excessive venereal indulgence or sedentary habits. In its mildest form it has been described by Dr. Gross* and others under the name of "prostatorrhœa."

This affection is confined, at the outset at least, to the glandular elements of the prostate and their excretory ducts opening into the neighborhood of the caput gallinaginis. The

* North Am. Med.-Chir. Review, July, 1860. Dr. Gross describes this as a hitherto unknown affection under the name of "prostatorrhœa;" but his account of it corresponds in almost every particular with that given by Mr. Adams under the head of "Prostatitis from Onanism." The increased secretion of prostatic fluid is a mere symptom of irritation or inflammation of the gland, and it is, therefore, desirable that the term prostatitis should be retained.

mucous membrane is thickened, and more vascular than natural. The openings of the ducts are enlarged and filled with a lactescent, opaline liquid, which is in some cases mixed with pus. (Picard, *Mal. de la Prostate*, 1877.)

One of the most frequent and prominent symptoms of this affection is a discharge of clear and transparent, or sometimes turbid, mucus from the meatus, which is found by the microscope to consist of, first, morrhous crystals of uric acid, or ammoniaco-magnesian phosphates; second, mucus-corpuscles; third, blood disks; and fourth, epithelium cells, either with or without a few pus-corpuscles. The discharge may be almost constant in its appearance and sufficient in quantity to stain the linen; or more frequently it is forced from the urethra by the pressure of the hardened feces during straining at stool, and is not perceptible at any other time. Most patients suppose that it consists of semen, from which it may be distinguished under the microscope by the absence of spermatozoa. Very many of the cases of spermatorrhœa so called are doubtless instances of this affection.

In most cases, the frequency of micturition is more or less increased; the stream of urine is ejected without force; the last drops dribble away, or are only expelled with considerable effort, and a scalding sensation is felt in the urethra during and after the act. Zeissel ascribes the dribbling away of the last drops of urine, and the undue moisture of the meatus after the act, to the "capillarity existing between the prostatic secretion collected in the urethra and the last drops of urine."

Pain and uneasy sensations are experienced in the perineum, thighs and lumbo-sacral regions; there is often great irritation about the anus attended by hemorrhoids or eczema; the bowels are constipated, and defecation difficult and painful; the passage of an instrument into the bladder excites severe pain as it passes through the prostatic region; on examination per anum, the gland is found to be tumefied, sensitive on pressure, and sometimes indurated. The patient is irritable and low-spirited; is incapable of mental or physical exertion; suffers

from weakness, headache and dyspepsia; watches his symptoms with the greatest anxiety; imagines that he is losing his memory, that he is impotent or affected with syphilis, and in short becomes a desperate hypochondriac.

Independently of its action upon the nervous system, chronic prostatitis is not a serious, although a very obstinate disease, often persisting for years. During its continuance, the patient is especially exposed to acute inflammation of the prostate in consequence of excesses of any kind or of a fresh attack of clap, otherwise chronic prostatitis rarely terminates in suppuration. By its long duration, however, the mucous membrane of the vesical neck may become involved, giving rise to frequent calls to urinate, attended with straining, and the exit of blood at the close of the act as in gonorrhœal cystitis. Still further, in consequence of this constant straining, the muscular portion of the prostate may become hypertrophied in whole or in part, resulting in an increase in the size of the organ similar to that which takes place in old age; one or the other lobe or the whole prostate acquires a hard, almost stone-like consistency, and, on post mortem examination, its tissue is found to be traversed by whitish, tense and tough fibrous bands, while the glandular elements seem to have disappeared through atrophy. (Zeissel.)

Mr. Ledwich* had an opportunity, in two instances, of becoming acquainted with the pathology of this affection:—“One case occurred at the age of eighteen, the second at thirty; both were well marked examples of the disease, and succumbed to phthisis, but this latter had no connection with the urethral affection. The prostato-vesical plexus was full, and many of its branches varicose; the capsule of the prostate adhered intimately to its surface, and, on slicing the gland, it seemed soft, with large, open, venous branches on the section, from which blood exuded, whilst the whole gland exhibited an augmented volume; the mucous membrane of its urethral aspect was *red, soft, thickened and villous*, whilst the ducts could be distinguished with the unassisted eye; the uvula and

* Dublin Quarterly Journal, August, 1857, p. 30.

trigonum vesicæ were red and turgid, but the remainder of the bladder was healthy. I examined with some anxiety for the presence of tubercular deposit in the gland, but, although this morbid condition was often anticipated, no evidence of any such structural lesion could be detected. The seminal ducts did not present any alteration as to size, their excretory orifices being discovered with the greatest difficulty, the vesiculæ seminales being full and swollen, but without any other abnormal appearance; scrofulous tubercles existed in the epididymis, yet the testicles, although soft and small, were otherwise healthy."

M. Bouloumié,* "in numerous autopsies," has found especially dilatation of the prostatic glands and numerous calculi of concentric stratification, but no muscular hypertrophy. Guerlain† mentions increased density and cohesion of the cellular tissue surrounding the gland, which he has seen infiltrated with pus forming an abscess around the organ, as also noticed by Sir Henry Thompson. (Picard.)

Treatment.—In most cases of chronic prostatitis, the patient is laboring under a combination of mental as well as physical symptoms, and the treatment must be directed to the mind equally with the body. It is not sufficient in these cases to dash off a hurried prescription and dismiss the patient after five minutes' conversation. The victim of mental more than physical suffering has for weeks, or even months, been brooding over his complaint during all his waking moments not absolutely necessary to his daily occupation, exaggerating each trifling symptom, entertaining the most gloomy forebodings of the future, and perhaps contemplating suicide. First of all, he needs a friend who can lead him, however reluctantly, to unburden his mind of its sorrow. This load removed, he at once feels lighter and more hopeful. The surgeon's first object, therefore, should be to gain his confi-

* *Considerations Générales sur la Pathogénie des Maladies de la Prostate*, Paris, 1874.

† *Thèse de Paris*, 1860.

dence by friendly yet manly conversation, lending a ready ear to the familiar story of the hypochondriac, encouraging him to feel that he has found a sympathizing friend as well as physician, and gradually and skilfully leading him from the depths of despondency to more rational views of his position and prospects in life.

One great source of anxiety to the patient is probably the idea that the transparent viscid discharge which appears during straining at stool, or is mingled with the last drops of urine, consists of semen. The surgeon is generally safe in assuring him of the contrary, without special examination, since diurnal spermatorrhœa without some degree of spasmodic action is exceedingly rare; but any doubt upon the subject may be removed by placing a drop of the fluid under the microscope, which will probably confirm his assurance by showing the absence of spermatozoa.

Most cases of chronic prostatitis require the administration of a tonic, as iron, of which the tincture of the chloride, in the dose of twenty drops after each meal, is one of the best preparations. I have also obtained favorable results from a solution of strychnia in dilute phosphoric acid:

R Strychniæ, gr. iss
Acidi phosphorici diluti, ʒ iv. M.

Sig. A teaspoonful three times a day.

Ergot, either alone or combined with camphor, is another remedy which may often be employed to advantage.*

Chronic inflammation of the prostate is perpetuated by the constipated state of the bowels and consequent straining at stool which usually attends it, and which should, therefore, be obviated by laxatives or enemata; but aloes, which is a constituent of most of our officinal preparations for this purpose, should be avoided, on account of its well known tendency to produce congestion of the hemorrhoidal vessels. Saline ca-

* See an article by Dr. C. L. Mitchell, on Ergot in Spermatorrhœa, Congestion, and Irritation of the Genital Organs in the Male; Amer. Medical Monthly, April, 1861, p. 283.

thartics may be administered in small doses in the morning on rising; but I much prefer enemata of cold water, taken immediately before the usual time of going to stool, which are followed by a loose evacuation unattended by straining, and which prevent the discharge of prostatic fluid.

Injections of a few drops of a solution of nitrate of silver—one to five grains to an ounce—into the prostatic sinus, by means of a deep urethral syringe, may prove serviceable. It is probable that many of the cures of “spermatorrhœa” by Lallemand with his *porte-caustique*, were in cases of mere prostatitis, but the use of his instrument is attended with no little danger. In cases complicated with gleet, astringent urethral injections may be required. The presence of strictures of large caliber in the straight portion of the canal should always be sought for, and if found they should be cut. Slitting up a small meatus, as recommended by Civiale and more recently by Dr. Otis, is found to have a decided influence upon affections at or near the neck of the bladder, partly by removing an obstruction to the free exit of urine and partly through reflex action. (?)

Blistering the perineum is also of very decided benefit in these cases. This is best done with cantharidal collodion, which is to be painted over a small surface upon either side of the raphé; and the application should be repeated over another spot as soon as the soreness of the first has begun to subside.

Moderate sexual indulgence is found to relieve the morbid irritability of the genital organs, and matrimony, when practicable, should be recommended to those who are single.

NEW YORK CITY.

FERRUM OXYDATUM DIALYSATUM.*

BY WILLIAM JUDKINS, M. D.

Mr. President and Gentlemen: In this paper I desire to call the society's attention to the efficacy of a drug of recent introduction, and which I find, on inquiry among different members of the profession, is a stranger to many.

Medicinal Uses.—The essayist has had better results with this drug, in the diarrhœal troubles of children, than any other article it has been his fortune to use in these complaints. In seventeen cases in private practice and two in the "Children's Home," within the last seven months, ranging from two months to two years and nine months of age, the results have uniformly been the same; a complete restoration of the secretions of the alimentary canal, within twenty-four to forty-eight hours, has taken place.

One of the most serious cases that has been my lot to meet was seen in the latter part of September. L. C., born July 22, 1877, of healthy parents, was well developed, weighing seven pounds and three-quarters at birth. For the first eight or ten days it nursed regularly; at the end of that time it manifested an aversion to taking the breast. The mother complained of some pain in the mammæ; the milk showed a darker color, slightly streaked with red and light yellow flocculi, which, under the microscope, were plainly shown to be blood and pus. It increased in quantity and thickness, and an abscess in both glands, *opening through the nipple*, was diagnosed, which after development proved correct.

The child was put on cow's milk, and for two weeks did remarkably well. At that time, on the intercession of the grand-parents, it was taken to their country-house in Indiana, where, from inattention, it soon began to show the want of proper nursing, and a troublesome diarrhœa set in. From

* Abstract of a paper read before the Cincinnati Medical Society, January 27, 1878.

what could be learned, I am led to believe that paregoric and subnitrate of bismuth occasionally, were the only medicines administered. After six weeks' absence, it was brought back and put in charge of a wet nurse. When first seen after its return it was barely recognizable; was very listless in manner; had lost in weight $3\frac{1}{4}$ pounds; was very much emaciated, eyes sunken, features wrinkled, and the skin over the whole surface of the body was quite flabby. An intolerance to the presence of food was well marked; an evacuation of the undigested aliment taking place soon after it was swallowed, and occasionally vomiting the ingesta in a curdled mass. Pulse 136, and feeble. An unfavorable prognosis was given.

I ordered two drops of dialysed iron in one drachm of water, every two hours. A marked improvement was manifest at my next visit, twenty-four hours afterwards. The passages had diminished in frequency, and a more cheerful appearance of the countenance predominated. A steady improvement has gone on ever since. Though giving due credit to the careful attention given the patient, with the change of diet, I am fain to believe the bulk of the benefit derived was due to the medication, which consisted solely of the iron.

In two cases of urticaria in adults—one acute in S. P. K., aged twenty-nine, male, white, single, and the other chronic in Mrs. L., aged thirty-two, white, married—the desired result was obtained with this drug; though the latter case was quite obstinate (as she is a great sufferer with dyspepsia), but finally succumbed to treatment within two weeks' time.

In a case of erysipelas, the ninth attack in fifteen years, in Mrs. J. C., aged seventy-eight, white, this tonic was given in ten drop doses every three hours, with the result, according to the patient, of cutting short the attack some five or six days, and in her estimation preventing the loss of her hair, which heretofore had invariably fallen out when convalescing.

Quite recently this new and valuable acquisition to our materia medica has proved efficacious as an antidote in arsenical poisoning. Richard V. Mattison, Ph. G., in the *American Journal of Pharmacy*, January, 1878, has a paper on the above

subject, giving the results of some laboratory experiments, which he sums up as follows:

“First. That dialysed iron, to be of value as an arsenical antidote, must be first precipitated by the action of some neutral salt.

“Second. That this precipitation, and the consequent production of ferric hydrate, is accomplished when the preparation is taken into the stomach.

“Third. Therefore, the solution of dialysed iron is a valuable antidote for arsenical poisoning, and should be administered promptly in cases of emergency, followed of course by an emetic, until more efficient remedies can be used.

“It, however, may readily be conceived that an antidote may be necessary in cases where the enfeebled stomach of the invalid may not be able to secrete sufficient gastric juice, even under the direct stimulus of the poison, or that the arsenic may be ingested into a stomach that is free from the presence of any gastric secretion. Now, while under these circumstances the mucous secretion might prevent absorption for a certain length of time, yet in these cases, and indeed we believe in all cases, the administration of a solution of dialysed iron, as an antidote for arsenical poisoning, should be immediately followed by a teaspoonful or more of sodium chloride, thus insuring the formation of ferric hydrate, and the consequent neutralization of the poison.”

In the Philadelphia Medical Times, December 8, 1877, Dr. Thomas B. Reed, of that city, reports in full a case of arsenic poisoning cured by the administration of the drug which is the subject of this paper. The following condensed account of it appeared in the January number of one of the Eastern medical journals:

“Miss S. accidentally left in the pocket of her gown a paper of arsenious acid, which had been procured to kill rats. Some days after she filled the same pocket with gum-drops and bonbons, and sat down to her work. She noticed an unusual quantity of white powder in her candy, but carelessly brushed it off without further thought. Probably an hour

and a half passed in this way, when she suddenly became deathly sick, and was at the same time seized with an intense pain, feeling as if she had had 'a pure mustard-plaster on the inside of her stomach.' She now remembered the arsenic, and immediately endeavored to relieve her stomach with warm water. Failing in this, she hastened to the doctor's office, who administered half a table-spoonful of dialysed iron (Wyeth's), from a sample-bottle on his table. This gave almost instantaneous relief, and the dose was repeated in ten minutes, then every half hour, and later every hour during the day. There was no return of the pain, except some slight cramps in the lower bowel and limbs; and a dose of magnesia, mucilaginous drinks, soft food, and an occasional dose of the iron, completed the cure in a few days. In the pocket were found two gum-drops and one bonbon, all thickly covered with a white powder. This was carefully removed with a brush, and found to weigh three and a half grains. The gum and sugar were then removed, and the remainder weighed over two grains. This shows that a considerable amount of the poison must have been taken." No sodium chloride, as recommended by Mr. Mattison, or any emetic, was given in this case, and a perfect cure resulted.

For the purpose of pursuing this interesting subject further, I procured a few days since a full grown rabbit, and with the assistance of Dr. John D. Jones, administered poisonous doses of the arsenious acid. I should say, however, before commencing, that the animal was firmly secured and a barbed arrow introduced into the pericardium, by which the heart's action was noted; one hundred and thirty-five beats (full), per minute, was apparently the normal state. One grain was given per orem, with the result of reducing the heart's action to one hundred and twenty per minute, though no decrease in fullness was noticed. In five minutes another dose was administered in the same manner, through a glass funnel, with the result of still further reducing the pulsations to one hundred and twelve, and somewhat less full. Some convulsive

movements were manifest at this time. The next dose was given endermically, reducing the heart's action to one hundred, and quite feeble; convulsive movements more marked, and some squealing. At this time we administered three fluid drachms of the iron with an equal portion of water, and soon noticed an *increase* in the heart's action and more quietude in movement. Two fluid drachms of the iron were again given, diluted with water, after an interval of twenty minutes, with the result of gradually bringing the heart's pulsations up to one hundred and thirty, but not quite so full as before the experiment commenced. Though undoubtedly a poor subject, as we could only have the *objective* symptoms, the iron certainly gave the desired relief, namely, cessation of the excessive convulsive movements, and a return of the heart's action to almost what it was when the animal was running over the office floor, before the experiment was commenced.

Conclusion.—In cases where tonics of any nature are indicated, especially in venereal troubles, I believe upon fair trial you will agree with me that this is superior to any of the rest. Two important reasons may be given for the assertion, first, that of its easy administration, to little folks in particular; and, second, the avoidance of any tendency to injure the teeth. As an antidote to arsenic poisoning, I am convinced that time will more fully prove its efficacy.

Of the different preparations manufactured, Wyeth and Bro.'s has given the best satisfaction in my hands. A drop-counter is recommended to be ordered with the medicine, as greater accuracy in the dose can be observed, which should range from two to fifteen drops (in water), according to age and severity of the case, every two or three hours. A much larger dose can be given without inconvenience, but not to any advantage, as only a certain amount can beneficially be absorbed.

WOUND OF SPLEEN WITH PARTIAL EXCISION— RECOVERY.

BY A. A. FARIS, M. D.

Encouraged by solicitations in a late number of the *American Practitioner* for short articles, or histories of cases, I offer a few notes on some four cases which have come under my own observation within the last few years. The first and only one I will refer to at present, is a case of wound of the spleen with partial excision.

The patient, Davis B., aged thirty-six years, was a man of strong frame, but somewhat debilitated by reason of malarial fevers and their sequelæ, having also a much enlarged spleen. Whilst engaged in a fray that occurred on the first of February, 1874, he was cut with a knife, the blade of which was four inches long and three-fourths of an inch broad. I saw him soon after the injury, and found him suffering with two penetrating wounds of the left breast—one entering the lung through the third intercostal space just above the nipple, and the other through the second space near the sternum; also two wounds of the left arm—one through the upper third of the upper arm, the other through the ulno-radial space in the middle of the lower arm. There was also an incised wound, commencing one inch above the ant. sup. spinous process of the left ilium, extending upward and backward three inches, through which protruded a portion of the spleen, with a piece three inches long and one inch wide (in the center) cut from its lower border, and hanging by a slender pedicle. Hemorrhage had been arrested until my arrival by forced flexion of the thigh, not until much blood had been lost, however.

I cut off the partially detached portion of the spleen, pressed the edges of the wound firmly together, and carefully pushed the spleen inward until the cut surface was level with the integument; then, with a large curved needle, sewed the spleen and walls of the abdomen together, compressing them tightly

with quill sutures, afterwards approximating as near as I could the edges of the integument over the cut surface of the spleen with a small silk suture. I gave eight grains of quinia, one grain of opium, and half a grain of morphia; ordered water dressings, with carbolic acid, three grains to the pint.

February 2.—Found him with high fever, and suffering with severe pain referred to the region of the spleen; ordered half a grain of morphia every hour until quiet.

Feb. 3.—Found him still suffering; stopped the morphia, and ordered three grains of opium and forty grains of hydrate of chloral, each every alternate hour, from which he rested some, but very little.

Feb. 4.—Found the patient still suffering; fever still high; wounds looking well; remained with him all night, and by the free use of opiates and Norwood's tincture of veratrum viride succeeded in getting him quiet; slept most of the night.

Feb. 5.—Patient feeling comfortable; did not complain of his chest, though there was frothy-looking blood bubbling from the wound in the third intercostal space at every respiration; from this time the patient improved rapidly.

On the eighth day the spleen was torn loose from its unnatural moorings, by an attempt on the part of the patient to turn on his right side. He cried out, "Oh, I am dying; something has broken loose *inside* of me." I was dispatched for immediately, and went expecting him to bleed to death before my arrival; but to my astonishment found him quiet, with no evidence of hemorrhage; spleen movable, but very tender to the touch. The wounds healed kindly, the spleen went rapidly down almost to its normal size, and the patient left the country. I heard nothing more of him until a few days since he returned, apparently in fine health, and says his spleen has not troubled him in any way since.

HICKMAN, KY.

Reviews.

Malaria and Struma—Their Relation to the Etiology of Skin Diseases. By LUNSFORD P. YANDELL, Jr., M. D.

At the meeting last fall of the American Dermatological Society, Dr. Yandell read a paper in which were embodied his views on the etiology of the acute and chronic skin diseases. His article was afterwards printed in the *American Practitioner* for January, 1878. The *brochure* under review is a reprint from this journal. As a thinker, teacher, observer and writer, the author holds a front rank in the profession of this country. This, as well as many of his other writings, smell not of the lamp alone, but bear the impress of careful clinical study unfettered by specious theory. He is old-fashioned and, we may add, sensible enough to think that experience is our best guide in matters medical, and that the retort and crucible of daily observation afford better results, in the treatment of diseases, than all the fancifully elaborated theories of the closet. If at times he seems dogmatic, it arises from an earnest endeavor to give us the reasons for the faith that is in him. Dr. Yandell, it should be borne in mind, is 'a general practitioner of more than twenty years' experience, and not simply a "one-ideaed" specialist.

Want of space forbids us giving Dr. Yandell's views *in extenso*. Suffice it to say that he regards the *malarial poison* and the *scrofulous taint* as the grand etiological factors in the production of most cutaneous affections, acute and chronic. Excluding the exanthemata and the parasitic diseases, he holds that malaria is the chief source of acute skin diseases, and that we may trace most of the chronic skin diseases to scrofula as a cause. Moreover he teaches that the inveterate

examples of either class are usually due to a union of the two causes, malaria and struma; and, furthermore, that these agencies often most unfavorably modify the course of the various exanthemata. Our author does not go so far as to say that in all cases malaria and struma are the sole cause of the disease in question; while they are the prime movers, they often require the coëxistence of some other perturbing agency. They alone may excite any of the dermatoses, and occasionally a predisposing cause is required. While exposure to cold, the infliction of a wound, menstruation, dentition, etc., are not alone sufficient to light up a cutaneous disease, they become efficient causes when coupled with the depressing action of malaria and struma. Dr. Yandell further holds that what is true of the etiology of skin diseases, is equally true of the diseases of the other tissues; that what is true of dermatology is true of gynecology, ophthalmology, otology, etc. Such are the author's views concisely stated. His cutaneous pathology is sufficiently simple, and so must be his therapeutics which grow out of it. *Causa sublata, tollitur effectus.* Eliminate the malarious and strumous elements, and you cure your patient's skin disease:—The salts of bark, iron and arsenic, for the one; cod-liver oil, malt, iron and the iodides, for the other; paying proper attention to diet and the general laws of hygiene in both.

While we can not say that we subscribe entirely to our author's views, we do him the justice to say that they have impressed us most forcibly. If we are not entirely convinced, we confess to a decided leaning to his side of the question. After reading this pamphlet, and recurring to past experience in the management of cutaneous diseases, we feel, as did Agrippa in the presence of Paul, that we are almost persuaded to become a convert. We are compelled to acknowledge that most skin diseases, acute and chronic, will not yield except under the persuasive influence of iron, quinia, arsenic, and antistrumous agents. We go so far as to doubt if a perfectly healthy person ever became the subject of a skin disease, except it be parasitic or one of the exanthems.

Now-a-days, we are not driven to the necessity of having a shaking fit in order to prove that malaria has invaded our systems. The chill, fever and sweat are not now as formerly so much the order of the day. Malarial manifestations have changed in various localities, but they are just as evident, and their forms are just as protean. If the malarial poison is painful enough to produce that most atrocious of human sufferings, *tic douloureux*, it can not require any great stretch of imagination to understand how it can lie at the foundation of cutaneous hyperæsthesia under the form of intolerable pruritus. Both affections have their origin in some modification of nerve sensibility. If the malarial poison can induce such marked anatomical changes in the tissues of the liver, spleen and kidneys, why may it not do the same in the delicate organism of the skin? If struma can put out eyes by causing acute and chronic ophthalmias, produce death from cerebritis and meningitis, and crippled people from articular diseases, why may it not leave its seal and sign on diseases of the skin? Such reflections as these certainly lend color to Dr. Yandell's views.

However much other authorities may seem to disagree with the author of this paper, the fact is evident that all of them consider the subjects of skin disease as usually below par. Iron, quinia, arsenic and tonics generally enter into the cutaneous therapeutics of hospitals and text-books. Some reason for a certain line of practice is certainly better than none. The treatises of specialists in skin diseases are proverbially meager and confused as to etiology; what is spoken of as the cause of one affection will do just as well for another. Debility underlies all of them. Dr. Yandell gives, as the cause of such debility, malaria and struma. These are certainly sufficient. Under the present lights, his explanations of the phenomena are plausible, to say the least; under any contingency they are better than none at all. As a pioneer in this regard, he is entitled to precedence. If dermatologists, in their researches and published works, would pay less attention to dreary classifications of skin diseases, and prolix descrip-

tions of their external configuration, and more to their essential causes as guides to proper treatment, science would be greatly advanced and sufferers would become infinitely less.

Dr. Yandell informs us that Dr. Heitzmann denies the existence of malaria in Vienna, Dr. White states that it is unknown in Boston, and Dr. Bulkley says that the malarial element does not have any effect in New York. Oh, would that we could take unto ourselves the wings of the morning, and fly to these happy climes where quinia is unknown. As the weary pilgrim turns his face to his beloved Mecca, so would we to Boston, New York and Vienna; for there would be our "sweet Araby the blest," where malaria is unknown, and chills are not even sojourners. But the truth must be told—malaria is omnipresent. It may not be as masked in some places as in others, but it is none the less ubiquitous. What will produce pernicious intermittent in one place, is followed by a mild type of fever in another; and in a third, it will only be shown by a neuralgia or a general feeling of malaise. The mistake is in thinking that a regular form of ague has to be developed, in order to demonstrate the existence of malaria. Wherever there is a conjunction of heat, moisture, and vegetable decomposition, there will malaria exist, whether it be in the rice-fields of South Carolina, the Roman Campagna, or the classic precincts of Boston. In some places its manifestations may be frank in the form of chill, fever and sweat; in others it may assume protean masks; but in all, it is unmistakable to the unbiassed observer. Is it possible that Boston is free from heat, that there are no moisture and vegetable decomposition there? Is it only lighted by the sun of science, and watered only by the Pierian spring? Is there no filth in any of its highways and byways? Is there no bad air in the slums and alleys of New York and purlieus of Vienna? Tell it not in Five Points; whisper it not on Fire Island.

Our author's pamphlet is carefully prepared, and bears the impress of earnest study. By adopting his views, if we err at all, it will be on the safe side. Its attentive perusal by the general practitioner will convince him that specialists may

sometimes wander from their narrow fields, and be guided by other lights than their own farthing-candles. We commend Dr. Yandell's pamphlet to the careful reading of all. C. R.

The Source of Muscular Power—Arguments and Conclusions drawn from Observations upon the Human Subject under conditions of Rest and of Muscular Exercise. By AUSTIN FLINT, Jr., M. D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, etc. New York: D. Appleton and Co. 1878.

This is a monograph of exceeding interest and value, for two reasons:—First, because of the nature of the subject and the masterly way in which it is handled; and, second, because of the just rebuke it carries to that large school of physiologists who are too prone to dogmatize upon purely theoretical grounds, to the detriment of sound advance in the science.

The topic treated and the gist of the book are as follows: The old question, the relation of urea to muscular wear being unsolved, an opportunity for its investigation is offered by the professional pedestrianism that of late years has been the card in athletic circles.

In 1866, two scientists, Fick and Wislicenus, ascend the Faulhorn six thousand five hundred feet, abstaining from albuminoid food and collecting their urine from time to time, subsequently analyzing it, and as a result of their investigations announcing "that the substances by the burning of which force is generated in the muscles, are not the albuminoid constituents of the tissues, but non-nitrogenous substances, as fats or hydrates of carbon." This formed a school, so to speak, of physiologists who hold that muscular force is generated, not in the muscular substances but immediately around the fibers—not out of the muscular matter, but from the carb-hydrates of the blood, the muscles being, like the parts of an engine, acted upon by this extrinsic force.

In 1870, Professor Flint, after superintending the training of Weston, makes a series of experiments upon him during his

five days' continuous walk in New York City. In these experiments great care and pains are taken; the body is frequently weighed, the food classified and weighed, and both the urine and feces analyzed. The conclusions deduced from these observations are to the effect that muscular matter wastes during physiological use, and that food supplies muscular force only by first becoming muscle, being assimilated.

But in 1876, Dr. Pavy, the distinguished English physiologist, conducts a series of experiments of a like nature also upon Weston, during a walk by the latter of six days' duration. In his report he criticizes the views of Professor Flint, and adopting those of Fick and Wislicenus, dogmatically avers that one can estimate the amount of force-evolving power in a given amount and kind of food, and thus determine the amount of labor that may be produced by the consumption of different kinds and amounts of food. He says:—"The food of animals contains force in a latent state. Properly regarded, food must be looked upon, not simply as so much ponderable matter, but as matter holding locked-up force. By the play of changes occurring in the body the force becomes liberated, and is manifested as muscular action, nervous action, assimilative, secretory or nutritive action, heat," etc.

It is this report that called forth the monograph now before us. The status of the question is carefully weighed from both stand-points, and while Professor Flint sees in the views of Pavy and others a most beautiful theory, and one that harmonizes with that of the correlation and conservation of force, he yet shows how impossible anything like scientific accuracy must be when one attempts to make of that theory, law. The impossibility of estimating the respiratory, circulatory and nutritive phases of force, he clearly shows, and leaves his readers convinced that Dr. Pavy has been too fast, and that however interesting his experiments, however fascinating his views, they must be relegated to the realm of theory for want of accuracy and completeness.

The book was originally published as an article in the *London Journal of Anatomy and Physiology* for October, 1877.

It contains some very interesting reading upon the subject of physical training, and also the tables which the author and Dr. Pavy made as a result of their experiments upon Weston. It is a work that will be sought for, not only by the profession but by the reading public generally, as an authority upon the very important subject of physical culture. E. R. P.

A Compend of Diagnosis in Pathological Anatomy, with Directions for Making Post Mortem Examinations. By Dr. JOHANNES ORTH, First Assistant in Anatomy at the Pathological Institute in Berlin. Translated by F. C. SHATTUCK, M. D., and G. K. SABIN, M. D. Revised by R. H. FITZ, M. D. With numerous additions from manuscript prepared by the author. New York: Hurd and Houghton. 1878. 8vo., 425 pp.

If in Germany and Austria, where doctors are taught pathology by such masters as Virchow, Rokitansky, Billroth, Cohnheim and Rindfleisch, the need of a practical manual of pathological anatomy is felt, how much more is such a practical work needed in America, where so many of our colleges are noted for superficial instruction in pathological anatomy, and where some of the graduates would be puzzled to distinguish the aortic from the mitral valves. On account, then, of this semi-instruction on such an important branch of medicine, we welcome this addition to our medical literature.

The manner of conducting autopsies is the same as ordered by the regulations of the Prussian government, and very explicit directions are given for a careful, methodical and searching examination, so that if the case should prove to be of medico-legal importance, justice may be properly meted out. In a post mortem examination, it is too often the case that only the gross appearance of the kidneys, liver, lungs and other organs, is observed; but in this book special directions are given for the preparation of the tissues of the various organs, and of new growths, for examination under the microscope. As an example of diagnosing the different pathological affections, take Dr. Orth's consideration of the kidneys. First is presented the condition of the capsule, followed by

the general condition, the size, the shape, color and consistency, cysts upon the surface; then, on section, observe the amount of blood in the organ, if there is any decomposition; then the separate affections, hemorrhage, the various forms of inflammation and degeneration, the different forms of renal infarction, tuberculosis of the kidney, the new formations which occur; and, finally, an examination of the calices, pelves and ureters. In the same manner, the various morbid conditions of the uterus, the changes produced in the stomach by disease, and especially by poisons, are considered; and so all of the organs of the body are thoroughly treated of.

Two excellent plates are inserted by the translators; the first illustrates the manner of opening the thorax, the second the manner of opening the heart.

The French system of weights and measures is used, which we are pleased to see, as eventually it must be adopted generally. The French word *gramme* is spelled throughout *gram*, and Webster's hope is being realized, "that the word gram may be anglicized."

The translation is smooth, the table of contents is composed of twenty-six pages, the index is full, and the book is printed on heavy paper, and exhibits the neat appearance of all publications from the Riverside Press.

A. M.

St. George's Hospital Reports. Edited by WILLIAM HOWSHIP DICKINSON, M. D., F. R. C. P., and TIMOTHY HOLMES, F. R. C. S. London: J. and A. Churchill. Vol. VIII. 1874-76. 580 pp.

This work, embracing a longer period than the preceding, is also imposing not only in its exterior but as to the number and character of the more extensive reports, and as to the surgical reports, which are far more elaborate than in the volume of Guy's. To refer to all of even the larger contributions would lead one beyond the limits of this notice.

Mr. Charles Roberts contributes a philosophical and comprehensive report on the Physical Development and Propor-

tions of the Human Body. It represents an immense amount of patient labor, and is, perhaps, the most important part of the volume. It is followed by another contribution, somewhat in the same line of research, but of more limited scope: Notes on the development and growth of boys between thirteen and twenty years of age, by G. Carrick Steet, F. R. C. S. The third article, Clinical Study of Retro-Uterine Tumors, by Robert Barnes, M. D., is exceedingly interesting and entirely worthy of its distinguished author. A number of shorter articles follow, among which Salicin and Salicylate of Soda in the treatment of Rheumatism, occupy considerable room. Notes from the Skin Clinique, by T. Whiphram, M. D., is the title of the next article, which presents nothing new or of special interest. Article XV, on the Amputation Book of St. George's Hospital No. 2, founded on the notes of five hundred cases there recorded, with observations on the antiseptic treatment of cases of amputation, by T. Holmes, is the surgical paper of the volume; but there are elaborated tables of amputations, of strangulated hernia, of compound fractures, and also of "operations," during each year. The reports of both medical and surgical cases are well prepared. A paper on Fat Absorption, and one on Inter-Tubular Changes in Renal Disease, conclude the list of important articles.

The book is well gotten up, and is a valuable addition to a practical and "working" library.

J. A. O.

Mortuary Experience of the Mutual Life Insurance Company of New York—With Tabulated Reports and an Analysis of the Cause of Death, By G. S. WINSTON, M. D., W. R. GILLETTE, M. D., and E. J. MARSH, M. D. Vol. II. New York: Printed by order of the Board of Trustees. 1877. 8vo., 224 pp.

This book consists of the analyses of the causes of the 5,224 deaths that have occurred among the insured in the company issuing the book, during the thirty-years of its existence. These deaths are attributed to seventy-six diseases in varying numbers, but consumption claims the longest list, amounting to 1,031, and being 19.74 per cent. of the whole.

Nearly one-third of the book—eighty-eight pages—is taken up with the presentation of these deaths from consumption in the various phases of age, residence, occupation, height and weight, heredity, etc., and the facts are arranged and compared in twenty-seven tables. And yet one can not but feel that the subject is treated unsatisfactorily, and that the tables are incomplete.

Under the head of residence, the table gives the lowest mortality from consumption in the states to Iowa, 9.8 per cent.; and the highest to Minnesota, 46.5 per cent.; with Florida next, 42.3 per cent. It is, however, stated on behalf of these latter states, that their large death-rate is due to non-resident consumptives, who go there seeking restoration and find graves. Kentucky has a consumption death-rate by this table of 16.2 per cent., Indiana 19 per cent., Illinois 20 per cent., and Ohio 20.8 per cent.

J. F. H.

Zur Behandlung der Blutungen nach Abort.

This is a reprint from the *Centralblatt für Gynäkologie*, No. 6, 1878, of a short article by Dr. Paul F. Mundé, on the treatment of hemorrhage after abortion. The manner of treatment related here is to introduce into the uterus a sharp-edged scoop or curette, and scrape away carefully and gently any part or the whole placenta which may be causing the hemorrhage. The operation is performed through a round speculum or by the aid of Sims's speculum. Narcosis is only necessary in very nervous or irritable patients. In many cases, if the uterus is flabby, Dr. Mundé applies the strong tincture of iodine to the inner surface after the scraping, and also a tampon in the os uteri. He says:—"I have up to date treated after this manner fifteen cases of hemorrhage after abortion, between the first and fourth month, and in every case immediately permanent cessation of hemorrhage resulted so soon as I had removed the adherent portion of placenta." Our own belief is that Emmet's curette-forceps is a much safer instrument than any curette yet devised, and equally satisfactory in its use.

Clinic of the Month.

TREATMENT OF TYPHOID FEVER.—Professor Alonzo Clark, M. D., in a clinical lecture in the Medical Record, April 13, thus speaks on the above subject:

We will now pass to the consideration of the treatment of typhoid fever. Active treatment of this disease has been long abandoned. It used to be the fashion to bleed, and also to produce ptyalism. I remember doctors who said with confidence that where they saw evidence of the special action of mercury in these cases, they were sure of recovery. But all that has been abandoned.

Again, there were doctors, and perhaps there are some now, who put great confidence in a purgative plan of treatment; or, perhaps more strictly, an emetico-cathartic plan. An emetic and cathartic were administered together, and the cathartic was always calomel. It was claimed by those who resorted to this plan, that in certain cases abortion of the disease has been actually produced. I doubt that. In the course of an epidemic of typhoid fever, cases of ephemeral fever occur. These terminate of themselves within a few days, and the general opinion now is that those cases which have been reported as abortive cases were really cases of ephemeral fever, or cases of themselves abortive. At all events, since "Graves fed fevers," the tendency in the profession has been to treat typhoid fever with as little medicine as possible.

I may safely say to you that a case of typhoid fever of average severity needs no medication except for the relief of certain symptoms, such as sleeplessness, perhaps a little urgency in the diarrhœa, sensation of burning upon the surface of the body, etc. There are a great many cases of typhoid fever which need no treatment whatever by way of drugs, but every

thing by way of management of the case. Still, it does happen in many of the cases that some one of the symptoms requires treatment. The *diarrhœa*, for example, in many cases requires restraint. Diarrhœa does not occur in every case of typhoid fever in this country; perhaps it does not occur oftener than in two-thirds of the cases. But when it does occur, the usual remedies are serviceable here as in other forms of diarrhœa. The astringent which I have referred to is found to answer a very good purpose. It consists of:

R̄ Bismuth subnit., 3 i

Morphiæ sulph., gr. i.

M. et div. in chart. No. xii. One to four a day.

The common astringents tr. kino and tr. catechu may be employed, and the decoction of blackberry root is sometimes very serviceable. In some cases it requires the moderately free use of opium to restrain the diarrhœa.

There is always a *cough* in typhoid fever, but as it is not important in the average case, I have not mentioned it until now. There is slight bronchial irritation, which appears early in the disease, and continues usually until the period of imperfect anæsthesia is reached, when it may cease. The material raised is commonly a glairy mucus, but in some cases the slight bronchitis becomes a catarrh, and will require treatment. It will need the same treatment as bronchitis occurring under any other circumstances, except that the tonic expectorants will be most likely to do good. Perhaps one of the best that can be used is the compound tincture of benzoin, in doses of ten drops on sugar once in three or four hours. A very good combination is the tincture of the balsam of tolu and the mistura guaiaci.

R̄ Mist. guaiaci, 3 j to 3 ss

Tr. balsam tolu, gttss. vj to x. M.

This can be repeated every two, three or four hours. Sometimes the inhalation of the vapor of warm water seems to be required for one or two hours each day.

Restlessness is one of the prominent features of the disease, and that will very frequently be entirely quieted by sponging

the surface of the body with warm or cold water. If the temperature is high cold water is better than warm; and in some cases a Dover's powder will be required.

The *temperature of the body* will require your attention. In many cases of typhoid fever it does not rise to a dangerous point; in a few cases it does. You will see the greater number of cases go through the entire course of the disease without the temperature at any time reaching 105° F. In a case of average severity the maximum temperature is about 104° F.; in occasional cases it reaches 106° F. or 107° F., and then you will either give quinia in pretty decided doses or use cold water for its reduction. If the patient is a young person, the cold bath is the most convenient means for reducing the temperature, and certainly the most efficacious. The temperature of the bath should be only ten degrees below the temperature of the body when the patient is first put into it. If the temperature of the body be 105° F., the patient may be placed in a bath having a temperature of 95° F.; then some of the warm water can be removed, and be replaced by cold water until the bath has been reduced to 80° F. If the patient is permitted to remain in such a bath twenty minutes, the temperature is usually reduced one, two, three, four, or even five degrees. He is then removed from the bath, put back into bed, and it will be several hours usually before the temperature will rise as high as it was before using the bath. When it rises, another bath is to be given, and in that manner you will go on repeating the bath as often as may be necessary to keep the temperature below the point of danger.

The son of one of the professors in this college has, within the present session, had typhoid fever. In his case the bath was used about five times a day for several days, and always with the result of reducing the temperature and affording great relief to the patient.

For the *hemorrhage from the bowels* there is but little that can be done, unless, in addition to absolute rest, the fluid extract of ergot be administered.

For the *perforation of the bowels*, I have some faith in the opium treatment. As I told you, I feel confident that I saved one doctor's life by the narcotizing influence of opium, and there is no objection in typhoid fever to the administration of this drug.

"Graves fed fevers," typhoid fever as well as typhus; and now we come to the two essentials in the treatment of this disease. I am in the habit of repeating the old proverb, "Stuff a cold, and starve a fever," and then add that we stuff them both now. First, then, the administration, steadily and perseveringly, of such food as can be absorbed by the stomach. We can not talk much of digestion; the stomach is in a diseased condition, and can not digest well, consequently everything solid in the way of food is out of the question. Most of these patients dispose of milk pretty well. For all those who can dispose of it, milk is the best food that can be used. For those who can not use it, you will be obliged to do the best you can with beef-tea, raw egg beaten up with water, and made of such consistency that it can be taken with a spoon; and the expressed juice of beef. The beef-tea does not contain a great deal of nourishment, and when it can be used milk is a much better article of food.

The expressed juice of beef answers very well, and can be obtained by cooking a piece of steak so as just to crust the two surfaces, and then cutting it into pieces and squeezing the juice out with a lemon-squeezer. The broths are given rather as diluted food in the early part of the disease, when it is supposed that the patient should not take much nourishment, but as the disease advances the food should be more and more sustaining. In cases in which the stomach fails to retain food, nutritious enemata should be employed. You will remember that the disease which produces the diarrhœa, is in the small intestine, not in the large.

The other essential of which I wish to speak is *fresh air*. In the treatment of typhoid fever you can not be too careful to have an abundance of *fresh air* admitted into the sick-room, both for the benefit of the patient and for the safety of

those who are attending him. I never fail, except under circumstances which render it impossible, to have a window on the side of the room opposite the patient dropped a certain distance from the top, even in the winter season, and then make the patient comfortable by bed-clothing, and protect him from a draught of air by the use of a screen.

EXTERNAL USE OF TINCTURE OF BELLADONNA IN NIGHT-SWEATING.—Dr. J. T. Nairne, *British Medical Journal*, says: For some little time past I have employed the common pharmacopœial tincture of belladonna for sponging the body in cases of phthisical and excessive sweating, and invariably with marked benefit. So far as my experience goes, I have found it very much better than anything else; if applied before a sweating comes on, it prevents it; if during the sweating, it almost immediately controls it. Two teaspoonfuls of the tincture, mixed with an equal quantity of whisky, are quite sufficient (applied with the hand) to cover the whole body and produce the desired effect. I have adopted this method of treatment in my last cases of scarlet fever, which have all done well; but they have not been numerous enough to justify any definite opinion of the value of belladonna applied in this manner.

THE HOT MUSTARD-BATH IN PNEUMONIA IN CHILDREN.—Dr. Leonard Weber, of New York, gives his experience in the use of this remedy, in the *American Journal of Obstetrics*, April, 1878. He has used the mustard-bath only in the severe cases of pneumonia of children. For years the treatment followed by him was that of the late Professor Traube, namely, the use of infusion of digitalis and nitrate of soda, whenever the pulse and temperature of the patient were high, and there was an indication that something must be done to bring them down. This treatment proved satisfactory for a long time, but he finally failed to have his former success; and in the asthenic cases admitted to St. Francis's Hospital, New York, more than fifty per cent. died in spite of all treat-

ment; and twelve per cent. of the sthenic form died, under the use of digitalis and an evening dose of Dover's powders. He further says:—"The great value of the hot mustard-bath as a means of saving the life of a pneumonic patient, after other remedies had failed, I learned in 1869. About a year before that, I attended J. A., ten months old, a previously healthy and robust child, afflicted with extensive pneumonia, after having been sick for a week with bronchitis. On the third day after I had seen and treated her in the usual manner, she became rapidly cyanosed and died. In November, 1869, another female child of about the same age and similarly good constitution, in the same family, became affected in the same way, and when I saw it I recognized pneumonic infiltration of both upper lobes. In spite of emetics, digitalis, mustard-plasters and poultices over the chest, she became cyanotic at the end of the third day, with stertorous breathing, cold extremities, and failing heart's action. It occurred to me at this stage to immerse the patient in a hot mustard-bath of 105° F., prepared by diffusing about a pound of mustard in a baby-tubfull of hot water. I kept her in for about ten minutes, making thorough friction all over the surface, and until the skin had assumed a pinkish color. After being put to bed, which I had well warmed previously, the child began breathing easier and soon fell asleep. The skin remained warm, and an hour after the bath the child was perspiring freely. With the improvement of respiration, the pulse became stronger and less frequent, and the child took the breast readily. Encouraged by this success, I repeated the process four hours later with the same good result; and after having administered five baths in the course of forty-eight hours, and given no medicine whatever, I had the satisfaction of seeing my patient convalescent."

Since then Dr. Weber has had about fifty cases, and gives here a short account of six of the most severe ones; all of them recovered, some of them being complicated with whooping-cough and measles, and in some cyanosis had occurred, the hot mustard-baths relieving the congested lungs and helping

the overburdened heart, after other remedies had failed to be of service.

The *modus operandi* given is that the mustard is a powerful irritant, and the hot water dilates the blood-vessels, and thus a large amount of blood is drawn to the periphery over the whole body, and the obstructed pulmonary circulation and heart's action are relieved. Again, the bath is regarded also a powerful excitant and stimulant of the central nervous system, respectively of the vaso-motor center acting upon it by way of reflex, through irritation of the nerves at the periphery, and thus relieves the comatose condition, where camphor and carbonate of ammonia have failed.

IODOFORM.—The yellow but strong-smelling crystals of iodoform are soluble in ether, and, as our readers were long ago informed, the solution in that fluid leaves much less odor behind than any other way of employing it. Oils fixed and volatile, are not pleasant or useful solvents. Chloroform is suitable for many purposes. Some give a mixture, and use a mucilage to suspend it. Bartholow thinks this will do, but the result is nauseous. Mr. Berkeley Hill and Dr. Prosser James both give pills, the best way of taking it internally. The former gives a grain-and-a-half, the latter one grain, in each pill, which we should think enough in ordinary cases. Externally it may be dusted over sloughing or ill-conditioned wounds, chancroids, irritable ulcer, rodent ulcer, phagedæna, and syphilitic ulcers. Fissure of the anus, hemorrhoids, and hypertrophy of the prostate, are said to have been relieved by suppositories. It is an anodyne, too, and relieves the pain of cancer, while at the same time it seems to partially disinfect the discharge. It is in syphilis it has been most used. It was discovered about the year 1824 by Serullas, and its properties have long been known to chemists. It is readily obtained by adding an alcoholic solution of potash to tincture of iodine, and crystallizes as a yellow lustrous coarse-grained powder of a peculiar pungent penetrating odor. It stands in the same relation to its analogues, chloroform and bromoform,

as hydriodic acid does to hydrochloric and hydrobromic. It may be regarded as chloroform (C H C I^3), in which the three atoms of chlorine are replaced by three of iodine (C H I^3). It also forms substitution compounds with chlorine and bromine. It is sparingly soluble in water and glycerine, less sparingly so in alcohol and warm oil, but readily soluble in ether, and to a still greater degree in chloroform.

Solutions of iodoform in alcohol and ether soon turn of a dark iodine tint; perhaps some substitution product or decomposition takes place. Chloroform seems a better solvent. Iodoform can readily, by trituration, be made into an ointment with either lard or vaseline. Its odor is only partially disguised by the addition of essential oils. As a powder, it can be employed alone or diluted with fuller's earth, magnesia or tannin; the last mentioned body is said to remove, in some measure, its powerful and disagreeable odor.

Mr. Berkeley Hill has used iodoform as a dry powder, brushed lightly over the surface with a moistened camel-hair pencil, for three years. During the last few months he has often substituted for the dry powder an ethereal solution, one part of iodoform in six or eight of ether. The sore is touched or dabbed with a pencil dipped in the ethereal solution, according to its size and depth, lightly or copiously. The ether quickly evaporates, leaving a thin pellicle of iodoform, that as effectually stays the spread, and produces healing of chancres, as does the more copiously applied dry powder. Thus the surface is covered more exactly, and the disagreeable smell of the iodoform is too faint to attract attention. The sore is well washed with water and dried before the iodoform is applied, and the surface is lastly protected by a bit of dry lint. When the secretion is abundant, the dressing must be renewed twice daily, but in three or four days the amount of discharge becomes so scant that one dressing per diem suffices. In this way Mr. Hill finds venereal sores heal quickly. Pain subsides at once; the sore is well in a week or ten days, and the chances of consecutive inoculation or bubo greatly lessened. (The Doctor.)

Notes and Queries.

THE AMERICAN MEDICAL ASSOCIATION.—The twenty-ninth annual session will be held in the city of Buffalo, N. Y., on Tuesday, Wednesday, Thursday and Friday, June 4, 5, 6 and 7, 1878, commencing on Tuesday at 11 A. M.

“The delegates shall receive their appointment from permanently organized state medical societies, and such county and district medical societies as are recognized by representation in their respective state societies, and from the medical department of the army and navy of the United States.”

“Each state, county and district medical society entitled to representation shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *provided*, however, that the number of delegates for any particular state, territory, county, city or town, shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the association.”

Secretaries of medical societies as above designated are earnestly requested to forward, *at once*, lists of their delegates. Will you kindly send to the undersigned a list of your members with their residences, in order that a correct record may be made of all who are in affiliation with this body?

“*Sections*.—The chairmen of the several sections shall prepare and read, in the general sessions of the association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections.” (By-Laws, Art. II, sec. 4.)

Practice of Medicine, Materia Medica and Physiology.—Dr. A. L. Loomis, New York, chairman; Dr. J. H. Etheridge, Chicago, Ill., secretary.

Committee appointed to report to this Section:

On Clinical and Meteorological Records.—Dr. N. S. Davis, Chicago, Ill., chairman.

Obstetrics and Diseases of Women and Children.—Dr. E. W. Jenks, Detroit, Mich., chairman; Dr. H. O. Marcy, Cambridge, Mass., secretary.

Surgery and Anatomy.—Dr. Henry H. Smith, Philadelphia, Pa., chairman; Dr. E. T. Easley, Little Rock, Ark., secretary.

Medical Jurisprudence, Chemistry and Psychology.—Dr. Walter Kempster, Oshkosh, Wis., chairman; Dr. E. A. Hildreth, Wheeling, W. Va., secretary.

State Medicine and Public Hygiene.—Dr. J. L. Cabell, University of Va., chairman; Dr. E. J. Marsh, Paterson, N. J., secretary.

The following committees are expected to report:

Prize Essays.—Dr. E. M. Moore, Buffalo, N. Y., chairman.

Necrology.—Dr. J. M. Toner, Washington, D. C., chairman.

Catalogue of National Library.—Dr. H. C. Wood, Philadelphia, Pa., chairman.

Recommendations in President Bowditch's Address.—Dr. N. S. Davis, Chicago, Ill., chairman.

W. B. ATKINSON, M. D., Per. Sec.,
1400 Pine St., Philadelphia, Pa.

OFFICERS OF THE KENTUCKY STATE MEDICAL SOCIETY.—At the recent meeting of this society at Frankfort, the following officers were elected: Dr. Charles A. Todd, of Owensboro, president; Dr. W. H. Wathen, of Louisville, senior vice-president; Dr. A. Price, Harrodsburg, junior vice-president; Dr. J. H. Letcher, of Henderson, secretary; Dr. J. A. Larrabee, of Louisville, treasurer; Dr. Singleton, of Paducah, corresponding secretary; Dr. John Speed, of Louisville, librarian. Committee of arrangements—Drs. McMurtry, McKee, Harlan and Meyer. Committee on publication—Drs. Coleman Rogers (chairman), R. O. Cowling, and James Holloway, of Louisville. Danville was selected as the next place of meeting—first Tuesday in May, 1879—at which time it is expected the McDowell monument will be unveiled.

REPLY TO DR. CHEATHAM.—In answer to “Inquiries concerning a new method of extracting cataract,” let me say to the first:—The aqueous running beneath the conjunctiva was not the only cause of my altering the intended section. If the doctor will look more closely, he will find that it was a deeply-set hypermetropic eye, with all that such a condition implies. And let me add that as I did not administer chloroform, and as my patient was as unruly as a child, I was necessarily compelled to either abandon the operation, or finish the section by turning the knife and cutting directly forward. As has the doctor, so have I had the aqueous to chemose the conjunctiva in numerous instances just after the first puncture, which of itself can scarcely be looked upon in a serious light; but in the case mentioned in my paper, combined as it was with the many other troubles spoken of, it compelled the practice there adopted.

II. “The knife is revolved while you are cutting out, I believe; still the incision is straight. I should think there would be considerable curvature to it. Why is it called straight?” The knife—but one twentieth of an inch in width—was passed through the cornea flatwise, one-ninth of an inch below its summit (of course this is not mathematically correct, as one has to judge of distance by one’s eye when entering the instrument); then turned upon its axis and made to cut its way out directly forward, instead of upward as in Graefe’s or Wecker’s operations. The last named methods would necessarily give one a curved flap, while the one spoken of by myself shows a perfectly straight cut across the cornea, one-tenth of an inch below its upper margin.

“Why call it straight?” Because it would be a misuse of language to call it anything else; indeed, it makes a more straight wound than does an iridectomy knife.

III. “How is it possible to do such a thing, . . . unless the iris is torn loose from its ciliary attachment by traction, which most assuredly would be a dangerous undertaking, as the ciliary body, choroid, retina and vitreous, would be apt to come also?” How does any one make an ordinary, broad

iridectomy?—does he take pains to carefully dissect away said ciliary margin? Theoretically, the criticisms upon my operation may look plausible; practically, they are of no weight. When one takes into consideration that I dealt with fact and not theory, and that my results were far better than the average in other methods, and as I also gave the names of most of the physicians who witnessed the operations, as well as the results in most cases, I therefore do not hesitate to speak of it as not only safe but in the highest degree successful.

In illustration of the ease with which criticism may be made upon operations, and the various complications which may cause one to change one's plan after having commenced, let us look at a case reported by Dr. Cheatham in the *American Practitioner* of March, 1878. He starts out to enucleate the atrophied eyeball of an elderly lady, to avoid sympathetic irritation in the other eye; he severs the internal and superior recti muscles, when a frightful hemorrhage causes him to discontinue it, and he places a compress over both lids and globe, even to the production of sloughing of the former. Who at a distance fancies he would have abandoned the operation and pursued such a course? And yet, doubtless, if any one were to undertake a criticism on his procedure, he most likely would bring out other facts to sustain said course.

I would have liked to have entered more into detail in my description of this method of extraction, as well as in the refutation of the above mentioned criticisms upon it; but fearing the encroachment upon space which the general practitioner of medicine prefers to see occupied by other matter, have given way. Should any one desire it, however, and the editors permit, I will gladly bring an abundance of fact and proof in support of this operation.

J. L. THOMPSON, M. D.

DR. H. R. STORER.—This gentleman, formerly of Boston, and who, owing to poor health, passed the last five years in Europe, has recently returned and located himself at Newport, Rhode Island.

THE UNION DISTRICT MEDICAL ASSOCIATION.—This association met at Rushville, Ind., April 25, 1878, there being about fifty members present; Dr. Weist, president, and Dr. Kerfoot, secretary *pro tem.*, in the absence of Dr. Dan. Millikin. After a few business preliminaries, the reporting of cases was called.

Dr. J. E. Chitwood gave a verbal report of a case of contraction or stenosis of the bowel near the cæcum. There was a tumor about the size of a hen's egg over the cæcum, which was very tender and remained for eight days. The important point was to decide between contraction of the intestine and some more dangerous malady. Large enemas were given from the start, and always moved the bowels, but only slightly. The patient was relieved from pain by frequent doses of opium. On the seventh day a rather free discharge occurred from the bowel, mostly mucus. Pulse 130, and general symptoms unfavorable. Next day the patient was much better and rapidly recovered.

Dr. J. W. Rutledge, of Cambridge City, read a paper on Nervous Symptoms following Uterine Derangements. Two cases were reported to illustrate the text. The first was a married woman, who complained of great pain along the spine and a pricking feeling around the body and of cold sensations running up the spine, sleeplessness, and various hallucinations bordering on insanity. There was slight erosion of the os externum. The second case was hysterical, with frequent epileptoid attacks, and almost a subject for the insane asylum. The cervix was congested, and blood followed the withdrawal of the probe. In both cases there was a leucorrhœal discharge. The first patient was treated with irritants along the spine and the Faradic current, but without effect. In both cases, however, so soon as the treatment was addressed to the uterine affections, which were trivial, the patients improved steadily. Dr. Hibberd and Dr. Boyd both discussed this paper.

Dr. Pugh read a very clear and practical paper on Uterine Tents, in which he gave the reasons for their use, the best

manner of introduction, the dangers from letting them remain too long, as peritonitis, etc. A long discussion followed the reading of this paper, which was participated in by Drs. Moffitt, Hibberd, Rutledge, John Arnold, Pennington and others.

Dr. Hibberd next read a paper on Infantile Convulsions, confining his remarks to the question, what should be the treatment during the active stage? He maintained the condition was the same in a paroxysm of epilepsy as in the convulsion of a child; and as in the former so in the latter, the patient should be let alone; give the child fresh air, loose all bands, don't allow it to bite its tongue. He would give no treatment except above, unless the spasm lasted more than a half hour; then he would use a pour-douche of cold water, enemata of bromide of potash, and inhalations of ether. Almost every one had something to say in the discussion, most of them dissenting from Dr. H.'s views, where the spasm was no longer than a half hour.

Dr. J. L. Thompson, of Indianapolis, gave a very interesting lecture on the diagnosis and treatment of diseases of the eye.

One of the pleasant features of the gathering was a sumptuous dinner given by the profession of Rush county. The time allotted for actual work by the association was entirely too short, not more than five hours. The next meeting will be held in Connersville, Ind., October 3, 1878.

EPHRAIM McDOWELL, M. D.—A REMINISCENCE OF AN OLD LADY.—Dr. G. W. H. Kemper, Muncie, Ind., has sent us the following reminiscence:

My mother, who is now in her seventy-seventh year, remembers with distinctness a visit she made to the home of Dr. Ephraim McDowell, at Danville, Ky., *fifty-eight* years ago. That was in 1820, and she was then in her nineteenth year. She remembers the date from the fact that my oldest sister, her first child, who was born in November, 1819, was not yet one year old. Her home at the time was at Lancaster, a few miles distant from Danville. She went in company with several relatives, among whom were a Mr. Archi-

bald Bryant and wife; the latter a patient suffering from an abdominal tumor, and prepared for its removal. The doctor lived in a large, neat and well furnished house. He often admitted patients into his spacious apartments. My mother describes McDowell as being tall and graceful, with pleasing manners. Mrs. Bryant had not reached the middle period of life, and had been married but a few years. She was a noble, Christian woman, and submitted to the operation with great fortitude.

My mother says Dr. McD. made an incision from the navel down to the bone (pubes). A large tumor presented at this opening, and an incision having been made in it, a great quantity of exceedingly offensive matter escaped. After the evacuation of the matter, an examination revealed the fact that the sac was firmly adherent, preventing its removal. Placing his hands to the sides of the tumor he pressed out all the fluids possible, cleaned the surfaces and stitched up the opening. Of course no anæsthetic was used. The assistants and friends were enjoined by the doctor not to converse except when necessary, and his own words to assistants or patient were few. Upon the completion of the operation the patient was placed in a bed in one of the back retired rooms. She was not allowed to make any exertion, and every precaution was taken to guard against vomiting. He trusted no one to carry her food but himself, and the quantity and quality were carefully examined. He stated that the sac might or might not refill. She rapidly recovered, and in a few weeks was removed to her own home. As time progressed the tumor reformed, and Mrs. B. died at the expiration of two or three years.

DR. DURANT ON PULMONARY CONSUMPTION.—With this number of the *American Practitioner*, the admirable essay of Dr. Durant is concluded. An able medical teacher has written us that Dr. Durant's contribution alone is worth more than a year's subscription to the journal, an opinion which will be indorsed by every one who reads the essay.

HORSE-FLESH AS FOOD.—As a depot is about to be opened for the sale of horse-flesh in London, it may be well to state some of the points claimed by the advocates of this food. First, the nutritive value of the flesh of these animals is said to depend upon the nature of the food they consume; and as horses, as well as mules and asses, live upon corn, hay and straw, they ought, other things being equal, to furnish better food than oxen, which are often fed upon articles of inferior nutritive value. Second, the horse, like the other herbivora, should produce a flesh specially suited for human digestion. It would be extraordinary, and quite contrary to what might be expected, if horse-flesh were not wholesome and nutritious. Veal and poultry are white and tender, but not highly nutritive; beef and horse-flesh are red and more firm; it is, therefore, thought they should be more nutritious. Third, the horse is most of all a useful working animal, so that he could not be profitably handed over to the butcher while capable of rendering more important service. But then in all our large cities there are numerous horses which have met with accidents, or are lame, as well as others which are so unmanageable as to be dangerous to use. These, it is argued, should be utilized for food. Of course, the flesh of diseased horses must be absolutely forbidden to be sold, just as we forbid the sale of other diseased meat. Sheep and oxen are quite as likely to be diseased as horses, the flesh of which is not liable to contain the germs of tænia. Besides all this, progressive spirits, as well as those who are overburdened with the weight of the butcher's bill, are exhorted to take courage from the example of Germany, Austria and France, where horse-flesh is largely consumed. In the last-named country the consumption of horse-beef has greatly increased. In Paris, the first shop for the exclusive sale of horse-meat was opened in 1866. To-day, there are in that city no less than sixty-one such establishments, which during the past year have sold for food the flesh of ten thousand horses, five hundred and fifty-eight asses, and fifty-three mules; it remains to be seen whether London will follow the example. Of course no one would

like to live upon horse-flesh alone, any more than upon cold mutton. *Toujours perdrix* is not a fascinating diet. But the question is whether the flesh of horses may not form a wholesome, nutritious, and perhaps palatable change in the diet of many people, even if it can not excite the admiration so freely bestowed on "the roast beef of Old England." (The Doctor.)

A NEW OBSTETRICAL JOURNAL.—In July next, Dr. E. B. Stevens will issue from Cincinnati a periodical devoted to obstetrics, and its associated branches, gynecology and pædiatrics. Dr. S., for so many years the successful editor of the *Lancet* and *Observer*, is just the man to make this new enterprise succeed. He has knowledge, business tact, tireless energy, and is not in the habit of failing in any of his undertakings. We wish him abundant success in this.

PHYSICIAN'S LOCATION FOR SALE.—See advertisement in present number.

TWENTY-SEVENTH ANNUAL MEETING OF THE INDIANA STATE MEDICAL SOCIETY.—This society will meet in Indianapolis on May 14th (third Tuesday), at 10 o'clock A. M. From reports already received, the indications are that there will be an unusually large attendance this year. A number of new county societies have been organized during the last year, which will help to increase the attendance and interest. It is greatly desirable that those who have papers or matters of scientific interest, will have them prepared and present them this year, as no special appointments were made last year. During the year past, there have doubtless been good papers presented to the various county societies, that would reflect credit upon the societies if referred by vote to the State Society for its consideration.

Will the secretaries of those societies that have not yet reported, please send lists of members, officers and delegates, with post-office address, together with dues, so that no delay shall occur in organizing when we meet.

G. V. WOOLEN, Sec'y, Indianapolis.

PROF. DAVID W. YANDELL, OF LOUISVILLE, KY.—During his visit to this city, on his way to Europe, this distinguished gentleman has been the guest of Prof. F. J. Bumstead, and has been the recipient of many hospitalities from his numerous friends. On the eve of his departure (Tuesday) Dr. Bumstead tendered him a brilliant reception, at which were present a large number of representative medical men. (Medical Record.)

THE WARREN PRIZE.—The Warren Prize Committee announce that the subject for 1880 will be *Original Observations in Physiology, Surgery or Pathological Anatomy*. Essays should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before February 1, 1880. The amount of the prize will be \$400.

THE KENTUCKY BOARD OF HEALTH.—Drs. Lunsford P. Yandell, Richard Curd Thomas, Pinckney Thompson, R. W. Dunlap, William B. Rodman, and James Shackelford, have been appointed members of the State Board of Health, which has been created by the present legislature.

DR. BUSEY'S WORK ON "LYMPH CHANNELS."—This volume has recently been issued by William Wood and Co., 27 Great Jones street, New York. There is no half labor in anything Dr. Busey undertakes; he is always complete and thorough, and "Lymph Channels" illustrates the truth of our statement.

CATHCART AND CLELAND—*Indianapolis Publishers of the American Practitioner*.—By reference to the title-page, it will be observed that Cathcart and Cleland, well known dealers in medical books, take the place of E. B. Porter in the publication of the *American Practitioner*. *All letters relating to the business of the journal* should be addressed John P. Morton and Co., Louisville, Ky., or Cathcart and Cleland, Indianapolis, Ind.

DR. YANDELL'S LETTERS FROM ABROAD—No. I.

LONDON, ENGLAND, April 18, 1878.

MY DEAR PARVIN: The week that I spent in New York was one of unmixed happiness. Much of the time was naturally passed among the doctors; and the doctors in Gotham are a great people. It is a rare privilege to know them. What was wont to be called "*southern* hospitality" has, while not having left its original home, certainly established a branch in New York which is equal to, if it does not actually overshadow, its parent. I should name Texas and New York doctors as being the most cordial of all the faculty in America.

I went through that very costly and most beautifully arranged institution, the New York Hospital; and while there had the pleasure of meeting Dr. Markoe, who wears the same cheerful face and speaks in the same kind tones to the sick with which he won me when I first met him, now more than thirty years ago. I also visited Bellevue Hospital, where I found Professor Gouley on duty, and saw that accomplished surgeon do several operations in his characteristically neat way. There was a large class of students present in the amphitheater, most of whom looked and behaved as the average medical student does in every lecture-room in the United States. Of course I saw Professor Sayre apply a jacket, and heard him expatiate on the plastic dressing with the same fire that some of his friends oppose it. So between them they make things warm—for the listener. I hope that when Dr. St. John publishes a paper which he has been appointed to read before some medical society in New York, it will go far to settle the question of the value of the plastic apparatus. I believe it will. And though nothing, perhaps, will ever convert many of the older surgeons to the newer doctrines, let us pray that the footsteps of the younger men may be directed aright, and the false gods of the fathers finally, if not also speedily, be broken into fragments. Mr. Erichsen said to me yesterday that Dr. Sayre had done a great deal to popularize the plaster in England.

Professor Van Buren was good enough to show me a man in private practice on whom he had done lithotrity two days before, removing the entire fragments at one sitting by Bigelow's new method. The patient, who was quite old, was well nigh as comfortable in every way as though he had undergone no operation whatever.

I had invitations from many surgeons to visit other hospitals, etc., but my strength was not equal to the labor; and then you know I had made some promises to my doctor *not* even to look on a hospital while in America.

Parvin, there was a bit of a tinge of sadness in this visit to New York. Just thirty-two years before to a day I reached that city, a young and inexperienced man fresh from the University of Louisville, on my way to this side the ocean to work. I go now, after this lapse of time, to rest from work. In that day the urbane and polished Mott wielded the surgical scepter of the great metropolis; while Parker, but a few years from his western home, had already laid claim to the distinction. Detmold, too, had a large following. Carnochan, but a few weeks before, had brought himself forward by some brilliant work, and was thought by his friends to be the surgeon of the future. Gunning Bedford was lecturing on "my good woman." Sayre was hammering away at anatomy, and manifesting a love for the work in which he has since won such renown. Van Buren, newly married, was already devoting himself to surgery, and by his powerful stride and easy way of going, made plain to all eyes that he was to take down the heavy stakes which have since fallen into his hands. Others, who showed in good form then, have since fallen by the way, and some whose names have escaped me have won coveted places. A long list have passed from sunshine to the sunless land, while scores of new and strong men have come to the fore. A few of the Titans still lend their noble presence and the dignity of their great names to the work which their successors are pushing forward with such enthusiasm. At an evening reception given me by the dear friend whose hospitality I accepted while in New York, I had the great pleasure of meeting many of the worthies I

have alluded to. I esteem it one of the great privileges of my life to know such men, while I must believe one of the most hopeful signs of the medical times is to be found in the fact that it is they, and such as they, who are the leaders of thought in our country.

Two weeks ago yesterday I took, at Jersey City, the vessel which debarked me at Liverpool last Sunday morning. Soon after leaving port, I saw standing on the quarter-deck—I am not sure that I know where that is, but it is where the commanders of ships always stand in the story-books—a very stout man in a blue uniform. I approached him, and touching my hat, said, “Captain Murphy?” “Yes—ir,” he replied; when I added, “Captain, my friend, Dr. Van Buren, told me to say to you that he had a new remedy for the gout, and if you were very good to me on the voyage he would give it to you.” “Which,” he at once rejoined, “the gout or the remedy? Well,” he continued, “no matter, doctor, if we can be of any service to you, we shall all be most ‘appy,” and the commander of the “British and North American Royal Mail ship Abyssinia” and I were acquaint. We didn’t meet again, however, until we bade each other good-bye at Liverpool, sea-sickness confining me to my room from that day until the twenty-four hours previous to landing.

Thursday, the day after starting, I ate one egg and a cup of chicken-broth. Friday I couldn’t swallow the egg. For the next seven days, during which the sea was said to be very rough, my *mênu* was as follows:—Breakfast, a bottle of Apollinaris water; dinner, a glass of soda-water; while, as the man on dried apple diet, who took the fruit for breakfast, a glass of hot water for dinner, and trusted to the swell as sufficient for supper, I was contented with the effervescence of the soda-water for my tea. A “red-ribbonite” “of the strictest sect” could not have asked anything milder than that as a steady thing. It came pretty near finishing me. Seven days of it left me so feeble that I could not stand up, and had to be carried on deck. Even now, after another seven days, I am unable to walk with comfort.

My friend, let no man persuade you that going down to the sea in ships is a mere nothing, a bagatelle, a thing to be dismissed with a pooh! pooh! I wish in my soul it was. I wish in my legs it was. But it isn't. To be sick as I am sick is to suffer nigh unto death.

"Climbing the ever climbing" wave may do, if you are raised to it and follow it as a business, but as a *divertissement*, for me at least, it is a failure. Let your servant spend the remainder of his days climbing trees rather than waves. This thing of being "rocked in the cradle of the deep" is a revolting delusion. It gives me a sense of "goneness" even now to think of it. I would vote for braining a man who could not make a better cradle than that found in the sea. "A life on the ocean wave" is next to death with me. "A home on the rolling deep" has far too much roll in it for my taste. "Give me dry land or give me death!" would be my cry.

"The man who wrote 'life on the,' etc., may have sailed in a boat
On some puddle, or on a sound;
But if he has been to sea and wrote
Such a song, he deserves to be drowned."

On this point I am positive.

The third day out from New York, a pensive warbler—I think a young woman answering this name is found on all passenger ships and in most railway cars—took position, at eventide, near my state-room, and attuning her voice to that of the sad sea waves, favored me with "Days of Absence," "Auld Lang Syne," and "Home, Sweet Home." She had not proceeded far into these festive ditties before I should have willingly granted her, on application, not only days of absence, but an absolutely indefinite leave of absence. When the voice of the warbler finally reached "Home," how exhaustively I wished she was bodily there; that she had in fact never left it, no one can ever know. "Warbler," should these lines ever meet your liquid eyes, believe me, O, maiden fair, when I say that the queen who sinned with Launcelot never came a whit nearer being driven mad by the voice of the little maid than I did by yours. The position which had

been held by the warbler was occupied next morning by a youthful whistler—another of the musical pests which infest public conveyances—who, putting his lips and breath at double-quick, opened on me. I offered the stoutest resistance my exhausted forces would allow, and had I believed that the young fellow was whistling as did Idle Jack, “who whistled as he went for want of thought,” I believe I should have held the fort. But I soon realized that the whistler meant business, and a sight of it, and I sent for the steward to reinforce me. I owe my life to his prompt aid. I beg to acknowledge it in this public way. If I owned landed estate, I should offer to that man its stewardship. I should at least remove him from that ship where his kind offices did so much for my comfort.

If I were asked to point the tales of those musicians with a moral, it would run thus: Parents, let your daughters sing not, and your sons whistle not, between decks on the stately ships of the sea. P. S.—Or on railway trains.

On Friday I was carried and laid out on deck near the smoke-stack and covered with great piles of wraps to keep from freezing. Though too weak to talk, I could see that my misery had all the company that its warmest love could desire. The sufferers were indeed many, and were, even at that late hour, still pretty actively engaged in throwing themselves away—in basins. All day I longed for buttermilk. Having mentioned it to a friend, very soon after a gentleman from Detroit, who had provided himself with some oysters in the shell at New York, was good enough to send me a few to use as a substitute for the milk, which of course could not be had. The flavor of the bivalve was grateful to my palate, and a half dozen did much to revive me. During my sickest days I wished for boiled milk. I believe I should have relished and been able to take it. But condensed milk alone is used on ship-board, and that, you know, is not good as a straight drink. If I had much sea travel to do, and had the means, I should have two good milch cows along; one to

give butter, and the other sweet milk. Next to cows, I should ship oysters in the shell.

Sunday noon we landed at Liverpool—dear Liverpool! dear to me as an asylum against the restless sea. And being now once more ashore, I do most solemnly declare that if it were possible I should never put foot on the ocean again. The “land of the free” would be freed from my presence, if not forever more, at least until some other than the present means of transportation was introduced.

When “Mrs. Cynthia Tucker, a lone widder from Tullyhomy, Tennessee,” as she described herself, was on her way to “the Illinoy to see her only half sister,” she sustained an accident on a railway which brought her under my professional care. While I was dressing her wounds, Cynthia remarked, “Well, this is the first time I ever rid on a railroad, and it’s gwine to be my last.” When I asked how she would get back home, then, she answered: “Don’t adzackly know; but if I can’t git to ride in no waggin, and can’t borry a critter from noboddy, I am gwine to walk.” I am not like the Tullahoma widow in respect to this being my first ride on the ocean, but I am quite of her mind as to the desire for a change in the mode of getting home again.

If I had my choice, I should naturally select the wings of the morning as affording, perhaps, the quickest transit. They being out of my reach, I should try and hire a rubber suit and its inventor, Mr. Boynton, as a traveling companion, and swim, or O’Leary’s legs and a good track, and walk. I would—well, in fine, I would return in any way rather than that by which I came.

After contributing to Her Majesty’s customs a trifle for a bottle of MacBrayer, which Charley Rufer gave me as I started, and which I had brought along to drink and not “for sickness,” I found my way to the “Adelphi,” where Rev. Dr. Humphrey and I spent our first night in England now thirty-two years ago. The house has been remodeled since then, and is now a good specimen of an English hotel. The rock-

ing of the vessel and the noise of the sea still clung to me and I slept none. With the early morning came Mr. Samuelson, who is so pleasantly known to Louisville people, and I went with him and his son, Mr. Charles S., to Mr. S.'s business office, where we remained till noon chatting about Louisville and our friends there. Later, Mr. S. was good enough to present me to A. B. Forward, the Mayor of the city, whom I found a tall and handsome man, with very cordial manners—a really fine specimen of the English gentleman. This being over, Mr. Charley and I drove to the family residence, situated in one of the suburbs of the city, and a most charming suburb it is, too. Presto! change! And what a transformation! In thirty minutes I passed from the heart of the city, where the rush and roar of commerce do not cease, into the quiet of orchard lawns, where the budding elms and springing grass make a very mist of green. At dinner I had the pleasure of meeting Dr. Taylor, the health officer of Liverpool, and Dr. Glynn, one of the faculty of the Royal Infirmary Medical School; the former well known to students of hygiene in America; the latter a cultivated, and though quite young, a popular practitioner of medicine. Major Greig, the Chief Constable of Liverpool, was also present. The Chief Constable here corresponds to our Chief of Police. Major Greig is a C. B., Commander of the Bath—a distinction conferred for distinguished services rendered the government during the Fenian troubles. He is a Scotchman. His hair, though white as snow, is as thick as ever it was, while his step is as quick as a boy's. His manners are singularly engaging. I also had the great pleasure of seeing General Fairchild, U. S. Consul at Liverpool, who, though prevented by business from coming to dinner, dropped in early in the evening. I did not meet the General during the war—he serving in Virginia and my duties keeping me always in the West—but I have never met anywhere a more agreeable gentleman. When Mr. S. presented us to each other, General F. said: "Doctor, I am very glad we didn't shoot your head off, else I had not had the pleasure of meeting you." I hear on all sides that

he is a general and very great favorite in Liverpool. It speaks well for Mr. Hayes's civil service reform that such men as General Fairchild are continued in office.

Tuesday, I called by invitation at Major Greig's office, and witnessed the (to me) novel sight of an inspection of the new uniforms of a body of policemen. A finer body of men than that inspected on that occasion by the Chief, it would, indeed, be hard to find—tall, well-formed men, who looked, as the Major expressed it, as though they had come of respectable parents. Here and there a chalk mark was made on the new suits to denote the changes to be made by the tailor. The Chief spoke cheerily and kindly to the men, and went through the two hours required for the work without using a sharp word or making an impatient gesture, and yet some of the command were neither bright nor quick. Occasionally the Chief would say, "Be lively;" "Hold up your head like a man;" "Come, my lad, not so slow, don't poke;" "Look pleasant." He complimented many with a word. "Your shoes shine well; you must pick your steps;" "You carry yourself well;" "You must have good digestion and good temper, you look so cheerful." To a very few he administered a reproof, but he leaned his face near the policeman's ear and spoke so low that none but the offender could hear it. To one burly fellow, who had a large and flaming red beard, he said, *sotto voce*: "Come, man, trim your face; you will scare people; you look ferocious." And so this fine old gentleman, quite of the olden time, proceeded till he had examined the clothes of all such as appeared on that day—say one hundred and fifty. The entire force under his command numbers between thirteen and fourteen hundred men. It requires, with such time as he gives it, about nine days to complete its inspection. When he was through, and I turned to thank him and say good-bye, he said: "Doctor, I hope we shall meet again; perhaps in this world. If not, let's try and meet in the next. Good-bye;" and the gentle-mannered, gentle-hearted Commander of the Bath and Chief of the Police of the borough of Liverpool moved quickly away. He was

good enough to send me two printed copies of an address which he made to his force when he was placed in command. It is so simple in language, and so replete with good sense and good feeling, that I have thought it worthy to be sent to the excellent Mayor of our own city, who, I believe will himself adopt it for use in his own force. I have time to make one single extract from it. Under the head of "Good Temper," the Liverpool Chief speaks thus:

"Good temper is as essential as sobriety. If there is an angry man amongst you, he is of no use to me. He will only get himself into trouble, and the force into disgrace. No one enters this force without my telling him that a mild word goes further than a big stick. I would rather have a young fellow as thin as a lath, with a silver tongue and pleasant way, than the most muscular, if coarse in voice and manner."

The Major, without knowing it, has addressed himself to a much larger auditory than a mere police force. He has spoken words here which may be pondered by us all—let us hope with advantage.

I visited the Royal Infirmary Hospital and Medical School, the two being across the street from each other. The hospital is large, but like all similar institutions constructed, as that was, many years ago, is ill arranged and badly ventilated. The clinical amphitheater is an exception in respect to both light and convenience. It was operating day. The surgeons in attendance were Mr. Bickersteth and Mr. Banks. The former is a name well known in America; but I think its distinction was due to the father of the present gentleman, who, though a popular local surgeon, has I think written but little. I saw him do a tenotomy, and straighten a rickety leg by breaking it. He afterwards put the limb in splints. He had the weary look of an overworked man, and seemed to be close on fifty years. Mr. Banks is a younger man. He, too, broke a crooked leg for rickets in a boy aged ten, and dressed it as Mr. Bickersteth had done. He also removed a tumor of doubtful nature from the lower part of the leg, and stuffed

the wound with lint wetted with turpentine. I subsequently went with him through the wards, and saw a couple of children with spinal curvature in Sayre's jacket, of which Mr. Banks spoke in the highest terms, telling me it had come into general use among the surgeons of Liverpool. I also saw a fractured leg or two in the plaster dressing, which they applied directly to the skin—I mean without the interposition of cotton. On asking if he had witnessed any ill effects from this plastic dressing, or from this particular mode of applying it, he answered none whatever. This will be pleasant news for Dr. Cowling. Dr. Banks's manner is very gentle and considerate to the poor people under his charge, almost as much so as that of my friend Markoe of the New York Hospital. While Dr. B. is an advocate of Sayre's jacket, he prefers Thomas's splint for hip-disease; says he has used the two on the same cases, and thinks T.'s unquestionably the best. It certainly is a clumsy-looking affair, but the patients in it appeared and expressed themselves as being altogether comfortable, and there is, in my eyes, no test comparable to that.

Mr. Harrison, one of the surgeons of the hospital, has, I learn, recently gone on a visit to New York and Philadelphia, to see what he shall see in a surgical way.

Wednesday morning, as we came down from Mr. S.'s house, Mr. S. was thoughtful enough to take me through the *Walker Art Gallery*, a really fine structure, built and presented to the city by the gentleman whose name it bears. Mr. S. is the vice president of the institution, and is much interested in its growth and development. I should think his fine taste, largely cultivated as it has been, would be of great help in that way. The walls of his entire house are covered with pictures; all of them beautiful, many very costly. Some of the pictures in the gallery are rare, and of great value; among them the memory of one clings to me. It is a female face of exceeding beauty, but of unutterable sadness. Its

"Sweet eyes of starry tenderness,
Through which the soul of some
Immortal sorrow looks,"

still seem following me.

Next door to the gallery is the Brown Library, an institution open to the public, also due to the munificence of a private individual. Besides a large and valuable collection of books, which I found were being enjoyed by hundreds of men and women, who were sitting around at the desks reading them, there is a splendid museum of natural history, coins, etc. I should have liked to spend the morning there, looking at the animals and birds, but I had to hurry away in order to take my place on the bench with my amiable host, who is one of the sixty magistrates who administer justice to the citizens of Liverpool. The British magistrate is an appointment of the Crown. It is an honor conferred only upon men of position and character. They receive no pay, no fees. The stipendiary magistrate, also a crown appointment, I believe gets, as his name would indicate, a stipend. The city of Liverpool has but one magistrate of this class. He gets about \$7,500 a year, giving his entire time to his work, and is required to be a barrister. His colleagues on the bench appear to me to correspond to judges of our police court, and work at their very disagreeable business about two weeks in the year, taking it in regular order of succession. Wednesday was one of my friend's days. He took his seat at sharp eleven. Another magistrate sat beside him. I supported him on the right. I put on my judicial face, but beneath it I felt duly sympathetic.

The first call brought two Irishwomen to the bar. The matter was about a hen—a Shanghai hen. The feathered biped was also in court. The three bipeds had their say—the hen doing her full share. What the women said was taken down by the “clerk,” who is not a stenographer, and wrote as all the officers of the court wrote, with a quill pen. When he recorded the opinion of the two ladies of each other, he read the statement—made in their own words—to them, and one of them at least made her ✕ mark. His worship inquired of another “clerk” if the accused had ever been before the court for other offenses; whereupon that individual turned over a great register, and answered—“In 1869 for

drunkenness;" "in 1874 for fighting;" and so the unfortunate creature's history in police books was read out against her, and she was committed.

The second case was furnished by a "broth of a boy," who, for the slight offense of a mild-mannered gentleman *not* treading on his coat-tail, had raised a row. The next—well, it was the counterpart of the others with slight variations. As the witnesses give in their evidence it is put literally on record, marked and laid away for use in the subsequent trial. While this is being done, the court or the attorney frequently says: "Now, be careful what you state. It is all being taken down. You won't be able to change it."

During the entire session of the court, I was not asked for an opinion—my colleagues not having occasion to differ. So I contented myself, and I believe also the bar, by looking on and looking wise. The justice associated with Mr. S. was a friend of that dear old gentleman, William Garvin, Esq., whom we in Louisville loved so well. The court, like all others, finally adjourned for dinner. This being disposed of, I took leave of the hospitable and delightful S.'s, shut myself up in one of the little coaches on the North Western Railway, to be whirled away at the rate of sixty miles an hour toward London, which I reached at early bed time.

The country traversed by the North Western Railway is full of the characteristic beauties of English scenery. The people who travel on the line of railroads between Chicago and St. Louis, or on the Sunset route, as it approaches San Antonio, Texas, will be able to see in a few years—as soon as there are more people and more villages—almost the duplicate of the gently rolling farm lands which lie between here and Liverpool. This is as good a description as I have time to give you of it at present. Language would fail to express the estimate I place at this moment on scenery—particularly if it is some distance from the sea.

The grass in the pastures is not yet sufficiently advanced to afford full grazing for the cattle, many of whom looked thin. Flocks of sheep abounded; the proportion of lambs appear-

ing much larger than with us. A few ponies here and there moved away as the train dashed along. The blackbirds twittered from the plum trees—the white blossoms on which were just fairly visible. A solitary angler was casting for trout. As evening set in, the cows were driven, lowing, to their pens, and the sheep gathered into their folds. When the darkness finally came, it was relieved here and there along the way by the tall smoke-stacks of the factories, which seemed to have taken their position as so many sentinels to guard the quiet scenes which they overlooked.

“London, sir,” said the guard as he opened the coach door. “Luggage and carriage, sir!” “Two wheeler or four, sir?” “Two wheeler! Langham Hotel!” “Thanks, sir.” And here at the head of Portland Place, in one of the most comfortable of the London hotels, I am.

If I had pulled the bell this morning, on rising, at the Galt House or Louisville Hotel, instead of at the Langham, a black man would have answered, bringing with him a pitcher of ice-water. Here, instead, the bell was answered by a tidy-looking, white-aproned, white-capped, white servant-girl, bringing a vessel of hot water. I don’t use hot water for shaving. I believe you do.

Faithfully,

D. W. YANDELL.

NOT TRUE.—Professor Callender, in an able valedictory, *Nashville Journal of Medicine and Surgery*, asserts that the “favorite aphorism of a distinguished living philosopher” is,

“On earth there is nothing great but man;
In man, there is nothing great but mind.”

These words, we answer, are found on the title-page of Sir William Hamilton’s lectures on metaphysics, they are used in one of the lectures, and they were said to have been inscribed upon the wall of his lecture-room in the University of Edinburgh. But Sir William has been dead some twenty-two years. And then, making the inaccuracy of Dr. Callender’s statement still more striking, Hamilton quoted the aphorism from Phavorinus—Favorinus, Hoefer makes the name in the

Nouvelle Biographie Générale—who, eunuch as he said he was, hermaphrodite as others called him, is especially entitled to the product of his own brain, as there was none of his body; and this Favorinus has been dead not less than sixteen hundred years! Who, then, is the “distinguished living philosopher” who delights so in the aphorism? If Dr. Callender will make the statement correspond with the fact, and if he will put the quotation in plain prose instead of giving it in the semblance of poetry, he will do justice to his scholarship.

PRIZE ESSAY.—The Alumni Association of the College of Physicians and Surgeons, in the city of New York, offer for the following year a prize of five hundred dollars, open for competition to all alumni of the college. It will be awarded to the best medical essay submitted, if deemed sufficiently meritorious, upon any subject which the writer may select. The essay, in order to compete, must be based upon *original investigations*. Each essay must be marked with a device or motto, and accompanied by a sealed envelop similarly marked, containing the name and address of the author. Essays must be submitted to the prize committee on or before February 15, 1879. They may be sent directly to any of the committee at the college. The committee consists of Drs. Henry B. Sands, William H. Draper, and Frank E. Beckwith.

DR. J. M. BELL.—Dr. J. Pennington, Milton, Ind., sends the following tribute to the memory of the late Dr. J. M. Bell:

Dr. Bell was born in Augusta county, Virginia, on the 18th of January, 1809, and came with his father to Indiana in 1832. He studied medicine with Dr. John Beaty, of Dublin, Ind., and graduated at Starling Medical College, Ohio; was married to Mary B. Schoolfield in 1834, and commenced the practice of medicine at Dublin. After a few years spent in a reputable practice there, he removed with his family to Milton, where he continued to practice several years, during which time he made many warm friends. Upon the death of his preceptor,

Dr. Beaty, he returned to Dublin, where he continued in active practice until death closed his useful life.

It was during his residence in Milton that the writer of this imperfect and hasty sketch became more intimately acquainted with Dr. Bell; and in justice to his character as a gentleman, can truthfully say that his general deportment, kind, social and generous disposition, was such as to win for him many valuable and steadfast friends. In his intercourse with competitors in practice he was just and reliable, without ostentation, closely adhering to the code binding on medical gentlemen. He loved his profession, and practiced it for over forty years of his eventful life. He was a kind and loving husband and father, and an accommodating and faithful neighbor.

Dr. Bell was a member of the Wayne County Medical Society, under its old organization, and also a member of the State Medical Society of Indiana. He believed in the truths of the Christian religion, and was a member of the Methodist Episcopal Church. After years of great suffering, which he bore without complaint, except in severe paroxysms, he died suddenly on the 24th of October, 1876, in the sixty-eighth year of his age, of disease of the heart.

STATE MEDICINE.—Dr. Samuel G. Irwin, of Crawfordsville, Ind., read an interesting essay on the above subject before the Fountain County Medical Society, April 4th. When her neighboring sister states, Illinois and Kentucky, have taken advanced ground upon this subject, and organized each a State Board of Health, surely Indiana will not hesitate as to the course she should take in justice to her citizens. Let these citizens be enlightened by the profession, and they will demand appropriate legal enactments.

DULL WIRE CURETTE IN GYNCOLOGICAL PRACTICE.—Dr. Mundé contributes to the Edinburgh Medical Journal, March and April, a valuable paper upon the above subject. The paper was previously read before the Edinburgh Obstetrical Society, of which Dr. M. was made a Corresponding Fellow.

A NEW SORT OF MANIPULATION.—The Obstetrical Journal of Great Britain and Ireland, March, 1878, contains the following sentence: “No change in the nipple could be detected; but on examining the infant’s mouth, I found that the child was *tongue-tied*, the surface of the tongue having a tender, raw appearance, evidently from the increased manipulation of the nipple which its condition had entailed.” It certainly is a strange manipulation that is done with the tongue; it would be just as proper to speak of osculation with the foot, auscultation with the nose, or calcitration with the hand.

CAFFEINE IN CEPHALALGIA.—Citrate of caffeine, in doses of two grains every half hour until the pain ceases, is strongly advocated as an effectual remedy. Often one or two doses are quite sufficient. The only contra-indication is sleeplessness, which sometimes results if it is taken in the evening. It is preferable to guarana as being hardly ever rejected by the stomach. In hay fever, spinal irritation, and general neuralgia, it would seem worthy of a trial. (Montpellier Médical.)

ASSOCIATION OF AMERICAN MEDICAL EDITORS.—The regular annual meeting of this association will be held on Monday evening, June 3, 1878, at the Tift House, Buffalo, N. Y. All editors of American medical journals are eligible for membership, and are cordially invited to be present and participate in the meeting. Address by Dr. John P. Gray, President, on the Rise of Lunacy Laws.

F. H. DAVIS, M. D.,

Per. Secretary.

CORRECTION.—The State Medical Society of Indiana meets on the 21st of May, instead of 15th of May.

THE AMERICAN PRACTITIONER.

JUNE, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

THE NEUROSAL AND REFLEX AFFECTIONS OF THE HEART.*

BY J. MILNER FOTHERGILL, M. D., M. R. C. P.

It has been stated by several writers on diseases of the heart that patients who present themselves to a physician, complaining of their hearts directly, never suffer from heart disease unless they have been previously told that their hearts are affected. This was in accordance with his own experience, and of all patients with neurosal affections of their hearts medical men were themselves the least satisfactory patients. They, unfortunately for their own peace of mind, knew enough of the subject to put the very worst construction upon their symptoms that they could possibly bear, and could not rest satisfied with the statement that the affection was only a nervous one, but in a few days or weeks had restored all their fears and apprehensions as to the interpretation of their symp-

* Abstract of the concluding lecture of a series delivered at the West London Hospital, on the Diseases of the Heart, with Special Reference to Causation and Treatment.

toms. The ordinary patient was only too glad to take the physician's word for it, and go away rejoicing.

The neurosal affections of the heart are mainly palpitation, irregularity and intermittency, though syncope could not be excluded. The vascular system is largely under the influence of the emotions, which variously affect it. Thus, in agitation or terror the peripheral vessels are contracted and the features blanched, while other emotions would dilate those vessels and suffuse the face with a blush. The blush, however, is not confined to the face, and Dieffenbach once observed a blush to spread over the whole cutaneous area. The condition of the circulation, under various emotions, has attracted the attention of poets and other writers. When the blood-vessels are dilated by emotion, the heart's action is excited, and the voluntary control over this condition is called "coolness." On the other hand, when the peripheral vessels are contracted, there is a rise in the arterial blood pressure, and an increase in the bulk of urine passed, as seen in the case of candidates for examination and in hysterical attacks in women. Voluntary effort will in some persons show the action of the heart, and pressure on the vagus, as by a tumor, will achieve the same effects, as in the case of the late Czermak of Prague. A well known case of arrest of the heart's action by a tumor on the vagus, which occurred in Heine's wards in Vienna, is related by Romberg, in his *Diseases of the Nervous System* (Vol. II). Neurosal angina pectoris is a truly nervous affection, commonly found in women about the menopause. It is essentially different from pure angina, which is caused by spasm of the peripheral arterioles.

The most common neurosal affection of the heart is palpitation, and it occurs much more readily with some persons than others. In order to appreciate each case of palpitation, it was necessary to remember that it was due to several conditions; and it might be well to eliminate the other conditions before proceeding to review the truly neurosal form. Thus, it was often found with a debilitated condition of the muscular walls of the heart, as in dilatation where palpitation is readily

induced by effort. Here there is a rise in the internal pressure within the cardiac chambers in diastole, and then active ventricular contractions were set up, as seen in the second lecture on the production of hypertrophy. Here palpitation was an actual sign of debility. At other times it was found in persons the subjects of gout or lithiasis, and especially ladies at or about the menopause. Here the cause was peripheral spasm, with a rise of blood pressure in the arteries and increased obstruction to the ventricular systole. In the form of palpitation associated with muscular failure, digitalis or strychnia or belladonna were indicated; in the other form, relaxation of the contracted arterioles by the inhalation of amyl was the correct line of treatment, just as amyl affords relief in true angina pectoris. Then there was palpitation which was truly a neurosal affection, and which was most commonly found in women. It might be either reflex or a true neurosis of the cardiac ganglia, just as hooping cough is a neurosis of the respiratory center. As to reflex palpitation it was often produced by a prolapsed uterus, coming on with the displacement and stopping abruptly on the replacement of the womb to its normal position. At other times, and most commonly, it was associated with some ovarian disturbance, as congestion or neuralgia. Indeed, the waves of nerve perturbation set up in an abnormal ovary might produce dyspepsia, a neurosal cough, palpitation or neuralgia, facial or intercostal, according as to where the nerve waves terminated—the disturbance being felt at the terminal end, just as ivory balls are hung in a row and one terminal one is struck, it is the one at the other end which flies off.

In some girls the heart seems swung in a very fine nerve balance, so that it is abnormally susceptible to any disturbing influence. Such is the case with two out-patients at the West London Hospital, mother and daughter. There is in both an excitable heart palpitating on the slightest cause, and apparently at times without any obvious cause. In the case of the mother a practical cure had been attained after some time by the continuous administration of quinia and hydrobromic

acid; but in the daughter little benefit had been derived from any method of treatment. In a similar case in a Jewess, at Victoria Park Hospital, for weeks no progress was made, when suddenly a change for the better set in and was maintained. Here the bromide of potassium with the tincture of steel was persevered with.

In some persons the heart was so readily excited, that the term "a badly behaved heart" seemed not inappropriate. The heart has been placed by the older physiologists as the seat of the emotions, and certainly it was easily perturbed by conditions of excitement in the reproductive organs. With some women, and men too, even moderate indulgence in the nuptial rite causes great disturbance in the heart's action, causing it to be unrhythmical as well as to palpitate: such was not rarely the case with people living under the most favorable circumstances in the country, as squires and clergymen. It was, however, necessary to be very cautious about the advice tendered under those circumstances.

As to the line of treatment to be adopted in each case of palpitation, it must depend upon the features of each case. Where there was a displaced womb, it should be restored to its proper position without delay. Where it was causally associated with ovarian congestion, a blister over the ovary, together with sulphate of magnesia and full doses of bromide of potassium, to lessen the conductivity of the nervous tracts, were usually of great service. Where the palpitation is due to a susceptible set of cardiac ganglia, then it was well to give the bromides, with or without iron, as might be required. At times palpitation might not be due to disturbance in the cardiac ganglia themselves, but to sudden changes in the peripheral arterioles—where rapid oscillations in the arteriole caliber lead to changes in the arterial tension, and with that to modifications in the cardiac action: in these cases tonics, or the union of them with the bromides in some form, were generally indicated, as where the palpitation is of truly cardiac origin. In two maladies—chorea and Graves's disease—the action of the heart is greatly disturbed, and is often so

violent that it seems as if the heart would shatter off the chest-walls over it. In chorea the palpitation subsides with the other symptoms; in Graves's disease, the palpitation is very little amenable to treatment, and of all remedies belladonna is the one most often useful.

In considering this subject, the question arises, "Are neurosal affections of the heart on the increase?" An affirmative answer must be given in the case of men at any rate. Dr. Da Costa observed, during the American civil war, a form of cardiac disturbance which he termed "Irritable Heart." A soldier, who had been engaged in active service, got either an attack of ague or diarrhoea, or something else which pulled him down. On rejoining his command, it was found he could not perform long marches without attacks of dizziness, the heart's action being irregular. The alteration in the number of beats per minute, on rising from the recumbent posture, was abnormally great. Exertion was badly borne. The treatment varied with each case. In some, cardiac sedatives, like aconite, were useful; in others digitalis and strychnia did more good: in fact, the condition in each guiding the treatment. And this experience of Da Costa's will be found that of others in dealing with the neurosal affections of the heart.

The next form of disturbance of the heart is irregularity, not amounting to intermittency. Dr. B. W. Richardson has likened it to the strokes of a smith on the anvil, when he changes the action for a moment and then rings again in regular time. It has seemed rather to be like the change of a horse's feet when cantering. Here the heart seems as it were to roll over, and then go on again. At times the beat, following the irregularity, is of unwonted force. Such irregularity is very common with dilated hearts, and when found along with palpitation on slight effort is of high diagnostic value. In other cases it is of no moment, and is a mere peculiarity. The longer the interval betwixt its halt the less significant it is, especially if the frequency be not increased by exertion.

Intermittency of the heart's action is a halt of the ventricular contraction over one auricular contraction; a second auricular contraction occurring before the movement is conveyed to the ventricle. This had been demonstrated by experiment. Dr. Richardson had shown conclusively that intermittency might be a mere nervous phenomenon caused by shock, fright or depression; that it was found in animals, and even in the human infant at birth. At other times, however, it is found along with evidences of decaying arteries and a failing. Such was the view of Dr. Hayden and others. Here probably it was due to imperfect nutrition of the cardiac ganglia, as well as the other tissues of the heart; and though a purely nervous disturbance, it was diagnostically and prognostically very suggestive. The opinion of Dr. George Balfour that slight intermittencies readily yield to treatment was indorsed. Sometimes the intermittency was apparent rather than real; the ventricular contraction failing to reach the radial pulse. The value of intermittency varied with its surroundings; it might be of great import or of no moment.

Closely allied to this cardiac halt was the abnormally slow pulse found in some persons, indeed in some families. It often went with great vigor and endurance, and was not then a malady. If, however, either in the intermittent or the slow pulse, the brain falters for want of arterial blood, then it distinctly was a morbid state.

In conclusion, it might be said that having found a cardiac murmur or an intermittent action, the harder task commenced of finding out its value and its importance; and in so far diseases of the heart were not matters to be settled by the stethoscope, however useful that instrument might be. The true diagnosis rests on something more than the mere recognition of the physical signs.

CLINICAL CASES ILLUSTRATING CERTAIN OBSCURE
MORBID CONDITIONS OF THE PELVIC
VISCERA IN THE FEMALE.

BY N. S. DAVIS, M. D.

CASE I. Mrs. M., aged thirty years, in the autumn of 1875, came under my care on account of what she called "falling of the womb," and inability to walk, or even to stand on her feet, more than a few moments. Her history was given as follows: About two and a half years previously she had been delivered of her first child. She had suffered unusually from nausea and vomiting during the greater part of her pregnancy, and at the time of confinement the labor was so protracted and severe that her physician completed it by using the obstetric forceps. Retention of urine followed, requiring the use of a catheter for several days; and there was so much local inflammation in the vagina and adjacent parts that she had considerable febrile reaction for six or eight days. Then followed sore nipples, some inflammation of the breasts, and the final drying up of the milk. At the end of three months after her confinement she could sit up, but could not walk without difficulty on account of lameness and a feeling of giving way at the symphysis pubis, and a sense of weakness through the whole pelvic cavity. There was also a peculiar sense of weakness in the region of the broad ligaments, and a feeling as though the womb and contents of the pelvis were passing down low in the vagina as soon as she assumed the upright position. Nearly all these unpleasant symptoms disappeared as soon as she resumed the horizontal position. A morbid sensitiveness to pressure, however, was manifest at all times over the right inguinal region anteriorly, and just above the sacro-iliac junction of the same side posteriorly. These symptoms were attributed to partial prolapsus or "falling of the womb," and her physician endeavored to afford relief by introducing a pessary. This instead of relieving rather increased

the unpleasant feelings of the patient, and was soon removed; and the patient remained most of the time in a recumbent position. Without undergoing much change in her general condition she menstruated regularly three or four months, and then ceased to do so. Soon after the cessation of the monthly flow, she began to suffer some from nausea and constipation, with an increase of the bad feelings in the pelvis and loins.

She now passed under the care of another physician, who attributed all her symptoms directly to chronic inflammation of the uterus and its appendages, and immediately commenced weekly local applications of some kind through the speculum. In a few weeks flowing with labor pains supervened, ending in an abortion. As soon as the immediate effects of the abortion had passed by, the local applications to the os and neck of the uterus were resumed and continued for several months, but without any improvement in the condition of the patient.

After keeping her bed continuously for more than nine months, she came under my care, presenting the following symptoms: General aspect moderately anemic, though not emaciated; pulse soft or weak, but natural in frequency; temperature natural; tongue clean; appetite moderate; bowels a little inclined to be costive; and urine less than natural. The menstrual periods were natural in frequency, but scanty in the amount of flow, and very little leucorrhœal discharge in the intervals. There was still moderate tenderness to pressure in the right inguinal region, with occasional pains there and in the loins. She was nervous and wakeful at night, despondent during the day, with a feeling of fluttering or trembling on making the least exertion. But that which gave her the greatest annoyance and anxiety was such a feeling of weakness, through the lower part of the abdomen and pelvis, that she would not sustain the upright position either sitting or standing five minutes without trembling and faintness. To use her own expression, when in the upright position she felt as though there was no support to the lower part of the abdomen, and that the womb was pressing down to the vulva.

So real did this impression appear to her that it was difficult to persuade her to assume the upright position for any purpose; hence, she was still very positive that she was suffering from uterine displacement. But, on making a careful per vaginam examination, I found the uterus high up, natural in size and position, and free from all appearances or indications of disease, except a slight tenderness to the touch and the sending of pain up through the direction of the right broad ligament when it was pressed upward. The vagina was roomy, and its walls apparently thin and lax; the abdominal muscles were also thin and flaccid. The patient, however, insisted that the womb "came down" whenever she sat upright or stood on her feet. To determine this, I repeated the vaginal examination with the patient standing on her feet, leaning against the edge of the bed, but without finding any noticeable displacement in any direction.

From the present condition of the patient and her previous history, I inferred that all her morbid sensations and inability depended on an altered condition of the nerves supplying the viscera of the pelvis, more especially the uterus and its appendages. The impairment of her nervous system by the long suffering from nausea during her pregnancy, ending with a severe and protracted labor, during which the nerves and soft parts within the pelvis were subjected to injurious pressure, were circumstances well calculated to induce morbid conditions of sensibility and impairment of nutrition in the injured parts within the pelvis, which would be slow in recovering. The early failure of the lacteal secretion and return of menstruation, followed by a second pregnancy; and this again followed by cauterizing applications to the os and neck of the uterus and an abortion, not only renewed but greatly increased all the evils resulting from her regular confinement. When the local inflammatory actions resulting from these causes had subsided, the pelvic tissues were left in a state of greater impairment, both in structure and sensibility, than before, while the long confinement in the horizontal position had rendered her abdominal muscles flaccid and weak.

Taking this view of the history and present condition of the patient, I advised an entire omission of all special applications to the uterus and of all instruments. She was allowed to use, once a day, a weak solution of sulphate of zinc and morphia as a vaginal wash, and to take internally the following prescriptions:

R̄ Oxide of zinc,	3 iss
Ext. scutellaria,	40 grs.
Ext. nux vomica,	15 grs.
Ext. cannabis ind.,	15 grs. M.

Divide into forty pills, and give one before each meal-time.

This was intended to lessen morbid sensibility and increase the tone of the ganglionic and vaso-motor nervous structures.

To still further allay morbid sensibility and favor good sleep at night, she was directed to take one fluid drachm of the following mixture at bedtime each night:

R̄ Bromide of ammonium,	3 vj
Fl. ext. conium,	$\frac{3}{4}$ ss
Fl. ext. viburnum prun.,	$\frac{3}{4}$ iss
Syrup of prunus virg.,	$\frac{3}{4}$ j
Water,	$\frac{3}{4}$ j. M.

She was allowed any variety of plain food that she would relish, but only sparingly of tea and coffee. During the first week she was required to sit upright in bed, supported by pillows a few minutes, three times a day. The next week she was assisted out of bed, and sat in an easy chair from ten to twenty minutes, twice a day. The third week she was required to get upon her feet and make some efforts to walk, at first only a few steps, but increasing the effort a little each day. Whenever she returned to her bed after having been upon her feet, she was required to get upon her knees, with the face and breast as low as possible, for two or three minutes, for the purpose of fully relieving any depression that the uterus might have suffered while the body was upright. By a faithful adherence to this plan of treatment, in two months she had exchanged her completely *bed-ridden* condition for one of ability to be up and about her room comfortably most

of the day. In two months more she could go out a little upon the street; and during the next two months she again became pregnant. Fortunately, however, she did not, as in the first instance, suffer from nausea, but continued to retain what improvement she had made, and to be up some through the whole period of gestation. She had a favorable labor, and although her getting up was slow, yet it was without serious trouble, and now, eight months after her confinement, she is up and aiding in the management of her domestic affairs.

In this case, the loss of tone in the abdominal muscles, and the feeling as though the uterus came low down in the vagina whenever she assumed the upright position, was very persistent; and yet repeated vaginal examinations, both in the horizontal and upright positions, failed to detect any degree of uterine displacement.

CASE II. Mrs. F., aged twenty-seven years, residing on West Van Buren street, had been confined to her house and much of the time to her bed for more than a year, when she came under my care. She was spare in flesh, somewhat pale, and of nervous temperament. Her history, as given to me, was briefly as follows:

Previous to her marriage she had suffered from dysmenorrhœa moderately, and in a few months after marriage had an abortion. After getting up from this she suffered from pains in her back and hips, a sense of weakness and downward pressure when on her feet, a moderate leucorrhœal discharge, and constipation of the bowels. Her medical attendant attributed these symptoms to uterine inflammation, and treated her with local applications through the speculum once a week for several months. But instead of improving she became unable to leave her bed. Another physician was then called, who attributed her symptoms altogether to uterine displacement, and introduced a pessary for its support. At first this appeared to afford so much relief that she was able to be up and on her feet a part of each day. But in two or three weeks she found the pain in her back and the leucorrhœal

discharge increasing, with a frequent and painful inclination to urinate. The speculum was then removed, and after a few days' rest it was readjusted, and she was allowed to get up. The same results, however, followed as before, but she persevered in wearing the instrument for two months, because she thought there was no other way to avoid constant confinement to her bed.

It was at this stage of her progress that I was requested to see her. On making a careful examination, there appeared to be inflammation and soreness in the vagina, urethra and neck of the bladder, with partial retroversion of the uterus. Without fully relieving the latter, the presence of the pessary decidedly increased the other difficulties, and I advised the discontinuance of its use. Instead of the further use of instruments of any kind, I advised her to use a mild astringent and anodyne wash once a day with the syringe; and to take internally one teaspoonful of the following prescription before each meal-time and at bed-time:

R Bromide of ammonium,	3	vj
Fl. ext. galium gen.,	3	ij
Fl. ext. conium,	5	ss
Syrup of rhubarb,	5	iss. M.

And to adopt faithfully the following daily routine of management: Live on plain, easily digestible food; get out of bed in the morning, and after being up until near ten o'clock in the morning, retire to her bedroom and first place herself on her knees, with the face and breast as much lower than the hips as possible; and while the abdominal muscles are fully relaxed, open the vulva sufficient to let the air have free access into the vagina. The weight of the pelvic and abdominal viscera, falling upward and forward from the position of the patient, aided by atmospheric pressure in the vagina, generally completely replaces the uterus. After remaining in this position from three to five minutes, she was to turn over on her side without raising up, and remain in the horizontal position one hour. Then she was permitted to be up until about three o'clock in the afternoon, when the same position and an

hour of rest must be repeated; after which she could be up until early bed-time in the evening, when, on first retiring for the night, the same position was to be repeated.

By following these directions faithfully, the inflammatory symptoms rapidly subsided, the leucorrhœal discharge diminished, the bowels became regular, and in six weeks she could walk on the streets a mile without difficulty. The patient was advised to continue the knee-and-chest position, followed by half or three quarters of an hour of rest, once in the middle of each day for at least six months, which she did, resulting in a full establishment of health.

I might cite a considerable number of cases that have come under my observation, closely analogous to the two here given, but they would occupy too much space and appear like repetitions, both in regard to symptoms and treatment. The leading object in detailing the first case, was to illustrate the fact that we may have morbid sensations in the pelvis strictly analogous to those produced by uterine displacements, without any degree of such malpositions being present. The second is given to illustrate the important fact that actual displacements, accompanied by such a degree of irritability of the parts as to render the wearing of intra-vaginal instruments very uncomfortable and injurious, can, in most instances, be fully relieved by skillful and persevering use of proper *positions and intervals of rest*, aided by appropriate general treatment. And both are given as an indirect protest against the indiscriminate treatment of all uterine and vaginal troubles by mere local applications.

Perhaps it would not be amiss to mention another practical suggestion afforded by the history of the first case here given. I allude to the want of discrimination between the early stage of pregnancy and uterine inflammation, and the danger of inducing abortions by the use of the speculum and strong local applications to the os and neck of the uterus. So many such cases have come to my knowledge, that I am induced to ask whether the practitioner or gynecologist is ever justified in making active local applications to the os and neck of the

uterus of a married woman, living with her husband, whose menstrual periods have recently ceased to appear at the usual time.

CHICAGO, ILL.

FOREIGN BODIES IN THE ŒSOPHAGUS.*

BY ALLISON MAXWELL, M. D.

Frankie M., who is now eleven years old, more than nine years ago, when he was sixteen months old, lodged a thimble in his Œsophagus. The thimble was open at both ends, and entered the pharynx with the large end downward. At first it could be easily touched with the finger when Dr. B. was called, who proceeded to operate. Having no instruments at hand, he improvised a hook which would pass through a thimble similar to the one which was in the child's throat. After trying some time to extract the thimble with this hook and a pair of forceps, he forced the thimble downward, as was supposed, into the stomach, saying it would pass through the bowels. Very unfavorable symptoms followed. Fluids swallowed were expelled with sudden force by the mouth, while solid food caused great distress and violent and spasmodic efforts to vomit until the food was expelled. Another disagreeable feature which appeared in a few days was pleurosthotonos, the muscles drawing the head and whole body to the left side, accompanied with a rapid succession of convulsive catches in the diaphragm and respiratory muscles like in hiccough. Before long another symptom manifested itself—an irregularity in the secretion of the kidneys. Sometimes he would pass urine every fifteen or twenty minutes during the day; then again there would be complete suppression for twenty-four hours. Cold wet cloths applied to the stomach seemed to partially relieve the vomiting. To prevent starva-

* Read before the Marion County (Ind.) Medical Society, April 23, 1878.

tion the child was nourished through the rectum with beef essence and cream, every two hours, to which was added a small portion of quinia. Rectal alimentation was continued for fourteen days, after which he began to retain liquids in small quantities in the stomach, daily increasing the quantity. Life was maintained this way for some time, and then a relapse occurred, which necessitated a return to the artificial method of nourishment. This rejection of liquid food by the stomach reoccurred at intervals for about three years, usually superinduced by attempts to eat solid food.

The longest period in which no nourishment was given per orem was twenty-eight days, which was about six months after the accident, when the child was reduced to a mere skeleton, the abdomen and limbs being discolored to such an extent as to present the appearance of mortification.

At this time, by the use of ice held in the mouth, he was enabled to take a few drops of brandy from time to time, and finally milk was retained by the stomach. From this period on, the child retained liquid food, and seemed to get apparently well and grow, but could not retain any solid food and never did, until after the expulsion of the thimble, which was vomited up on the 27th of July, 1877, nine years after it was swallowed. The thimble, when vomited up, was surrounded by a fungous growth and much eaten away. Its weight is thirty grains, its length three-eighths of an inch. A thimble similar to this one when swallowed, weighs forty grains, is six-eighths of an inch in length, with a caliber of nine-sixteenths of an inch. The boy, who was at the well getting a "cool drink" of water, as he expressed it, accidentally got some of the water in the trachea, and the spasm of the glottis and the coughing caused immediate expulsion of the thimble.

Considering the above history, furnished through the kindness of the mother and from the boy, I am led to believe that the thimble never passed into the stomach but remained in the gullet; and that the efforts of the first doctor called only put the long axis of the thimble parallel with the long axis of the œsophagus; and the reason the efforts of several of the

most skillful physicians of Indianapolis failed to find the thimble was that the probangs and sounds passed *through* the thimble and into the stomach, and hence it was naturally inferred that it was dislodged and in the stomach.

The pleurosthotonos and the hiccough which occurred, probably tend to establish the diagnosis that the thimble remained in the gullet, and that these symptoms were caused by the pressure upon the pneumogastric, phrenic, and cervical plexus of nerves.

The excessive secretion of the kidneys at times, and then entire suppression, are symptoms which can not be accounted for except on the supposition that the kidneys were affected through the great sympathetic. A few days since, when I saw the boy, he still expressed a difficulty in swallowing solid food, saying that sometimes it was rejected, and that his principal diet was milk, of which he took three quarts daily. It may be that there was sufficient inflammation to have caused cicatrices, which, contracting more or less, have narrowed the caliber of the Œsophagus; and another cause of the dysphagia may be from desuetude of the muscles of deglutition.

This child almost succumbed, and it is well that we should consider the dangers and the best manner of getting rid of foreign bodies in similar cases. One of the *immediate* dangers of a foreign body in the Œsophagus is that of suffocation or choking to death. This accident has often occurred from particles of food and other substances lodging in the throat. There was a case some time ago, in an adjoining county, in which a woman, when laughing, swallowed her false teeth and died almost immediately before aid could be summoned. In the London Lancet, 1871, a case is narrated where, after an attempt to extract false teeth, they were pushed into the stomach. The man died suddenly, and at a post mortem examination it was found that the angular hooks on the tooth-plate had torn the Œsophagus and perforated the aorta.

One of the *remote* dangers from these foreign bodies is malnutrition, as in this little boy, which may result fatally. Two or three years since a case was related to the Medical Society

of Strasburg by Dr. Roth, in which a child, three years old, swallowed a button. The symptoms were somewhat similar to those manifested in this case of Frankie M. There was a good deal of vomiting and inability to take solid food, the child being nourished on milk. About two years after, the child swallowed a second button. Treatment failed, as in the first case, to produce the button; but after twelve days both buttons were vomited, and were of the size of a franc-piece. In this instance, it was concluded that the buttons had not lain in the stomach, but in a pouch above the cardia.

Another remote danger is ulceration by the foreign body into some of the adjacent parts, as the spinal cord, the pleura, and the aorta. Dr. Ramskill reports a case of death from ulceration into the aorta,* in which the impaction of a fish-bone in the œsophagus by such ulceration produced copious hemorrhage and sudden death. Death may also result from abscesses.

A case is recorded in the Medical Times and Gazette, where a pin swallowed caused epilepsy from its constant irritation, with resulting death two years after the accident. Epithelioma may be a remote danger, caused by continued irritation of the mucous membrane.

The *diagnosis* usually is not difficult, but in infants where you have only the objective symptoms, it is important to know positively that a foreign substance has been swallowed, to know what that substance is, and to locate its point of lodgment. A probang is generally sufficient to discover the body; but Erichsen gives a case where a patient had swallowed a piece of flat gutta percha, which in repeated examinations he failed to detect. More than six months afterward the man died from sudden hemorrhage, and an autopsy showed the plate imbedded in the œsophagus, where it had produced ulceration of a large vessel.

Another way of locating the body, recently applied and presented in a late volume of the *Nouveau Dictionnaire de Médecine et de Chirurg. Pratiques*, is by auscultation of the

* The Lancet, Vol. I, 1871, page 646.

œsophagus when the patient swallows. Auscultation in this manner reveals, by the sudden stoppage of fluid in the gullet, the place of lodgment; and if there is ulceration it is indicated very clearly by a friction sound, and if the tube has been ruptured by the body or by instrumental efforts, it will be indicated by a hissing sound.

In the same work is recommended, for detecting the nature and location of foreign bodies, a flexible probe with a metallic or hard bulb on the end introduced into the œsophagus, and at the other end is a flexible rubber with a hardened piece of gutta percha to be inserted in the ear. An instrument of this kind was used by the Frenchman, Léon Labbé, in diagnosing that a fork which had been swallowed was in the stomach, and with this information gained he performed the operation of gastrostomy, extracted the fork and the patient recovered.

Palpation is also advocated as a means of determining the size and locality of foreign bodies, where they are not too far down the œsophagus. There is also an instrument—the œsophagoscope—which in some cases may be of practical benefit in arriving at a diagnosis, but has not yet been of much use.

After the diagnosis, the next important consideration is the *treatment*. To save the life of the patient, often measures must be taken with decision and executed *immediately*. Langenbeck, in a paper read before the Berlin Medical Society, published in the *Berliner Klinische Wochenschrift*, and afterward in one of the British journals, gives three cases in which the substance was swallowed in his presence, where the pressure on the larynx caused great dyspnœa and cyanosis, and but for immediate removal by the finger death would have resulted. The finger is the first instrument to be used, and if this don't succeed (if a child) hold it up by the heels and strike it in the back, which concussion, aided by the force of gravity, may expel the body. Next try the various forms of forceps. Where the substance is not large, a horse-hair probang may be introduced beyond it, and upon withdrawal remove it.

There are some cases where manipulation externally proved successful. In the *Lancet*, November 4, 1876, a case is reported in which a child, seven years old, had swallowed a half penny, and by palpation it was found to be lodged in the œsophagus just above the sternum. The child was put under the influence of chloroform, the coin was worked up with the thumb and fingers, until its edge could be felt in the pharynx, from whence it was easily extracted.

In the *American Practitioner*, April, 1877, there is an article translated from the *Memorabilien*, reporting a case in which a woman with syphilis swallowed necrosed nasal bones while asleep, lodging half way between the pharynx and stomach. All efforts failed to remove the bones, and the woman had almost succumbed from insufficient nourishment, when a long whalebone sound, with a knob on the end, passed beyond the body produced such irritation and retching, that it was expelled by a power which may be termed *vis a tergo*.

Since the discovery of apomorphia, we have a powerful emetic which may be administered hypodermically* where emetics can not be swallowed, and thus cause the expulsion of foreign bodies lodged in the œsophagus almost immediately. Holmes says that pieces of meat and bone, which could not be dislodged, have been known to be so far disorganized and softened by the constant use of dilute mineral acid, as to be at length swallowed. Where foreign bodies can not be extracted they are often pushed into the stomach, and usually pass per rectum; but sometimes do not, and then gastrostomy may be necessary, several successful cases of which have been reported in the last few years. However, before this operation is resorted to, an instrument called a coin-catcher may be introduced into the stomach, and by this method a case reported in the *Lancet* was treated, a plate with five or six false teeth being removed.

It is possible that an instrument, a modification of the lithotrite, might be made, and passed into the stomach, and the

* *Nouveau Dictionnaire de Médecine et de Chirurg. Pratiques*, tome XXIV, 1877.

foreign body extracted; and if it is known to be irregular in shape and large, as a plate with false teeth, the instrument could be used to break the body into small pieces, as stones are broken in the bladder, and then could be extracted without danger of rupturing the œsophagus, or allowed to remain and pass per rectum. Or, in case a foreign body could not be extracted from the gullet on account of sharp corners, as in the plates of false teeth, there also it might be broken up if of a brittle substance.

It is astonishing, however, what nature will do in getting rid of foreign bodies swallowed into the stomach. Velpeau reported to the Academy of Medicine, in Paris, an extraordinary case, where a man accidentally swallowed a small veal-bone, and, being about to suffocate, he thrust a fork eight inches long into his throat to push down the bone. This produced retching, and the fork slipped and was swallowed into the stomach. The fork remained in the stomach four months and then passed into the intestine. After a sojourn of fourteen months in the intestine, it passed per rectum. Numerous examples of this sort might be cited of a hundred various substances swallowed and passed per rectum.

Another method of removal, where the substance can neither be gotten up or down, is to perform the operation of *pharyngotomy*. In Guy's Hospital Reports, Mr. Cock records two cases where he had to perform this operation, and did it successfully, for the removal of artificial teeth impacted opposite the cricoid cartilage. Œsophagotomy, which term is sometimes used synonymously with pharyngotomy, is a *dernier ressort*, and is a rare operation. It is not such a dangerous operation, however, for the entire number of operations up to this date, according to Langenbeck, is twenty-eight, of which number five died, less than twenty per cent.* Dr. James Arnott was the first to perform this operation in England, in 1834, the child recovering. One of the results of this operation may be a fistula, as occurred in a case of Dr. D. W. Cheever, of Boston. Another danger is acute sup-

* American Journal of Medical Science, April, 1878.

puration and sloughing of lung tissue, which occurred in a case of phthisis operated by Billroth, of Vienna.

I will conclude with Erichsen's statement, that where the foreign body goes into the stomach, neither purgatives nor opiates should be given the patient; both are injurious, the purgatives by increasing the irritation of the bowels, the opium by arresting the progress of the foreign body.

INDIANAPOLIS, IND.

CHARACTERISTIC DIFFERENCES BETWEEN THE INITIAL LESION OF SYPHILIS AND SOLUTIONS OF CONTINUITY FROM OTHER CAUSES.

BY F. N. OTIS, M. D.

The characteristic and only constant feature of all lesions, during the active stages of syphilis, is shown, by microscopic examination, to consist in a localized cell accumulation.

Consideration of the nature and behavior of this material will afford intelligent aid, in a differential diagnosis, between the initial lesion of syphilis, in its early period, and solutions of continuity from other causes. As far as known, syphilis is primarily a process of cell growth and accumulation, so rapid that it interferes with healthy *tissue* growth, by obstructing the processes of nutrition and development. Not of necessity interfering to the extent of causing death of tissue, but of impairing its vitality, and thus causing it to break down more rapidly under influences which favor solutions of continuity. Hence we have presenting, as *characteristic* initial of syphilis, either a neoplasm, dense, insensitive, and covered with unbroken, and apparently normal, cuticle or mucous membrane, or, from the causes above mentioned, some one of the various characteristic *solutions of continuity*.

In addition to the foregoing *characteristic* lesions, we may also find early local disturbance, in various forms and from

various causes, associated with the beginnings of syphilitic cell accumulation, but presenting no features *characteristic* of syphilitic inoculation.

The known fact, however, that syphilitic infection not unfrequently follows a wound of inoculation, which heals promptly, and with no subsequent solution of continuity, is sufficient to prove that *neither* INFLAMMATION *nor* ULCERATION *is an essential feature in a syphilitic inoculation.*

Thus:—wounds, abrasions, broken vesicles, pustules, or ulcers, *may* receive a syphilitic inoculation, and progress or heal, as if no such inoculation had taken place.

It is then evident, that no *positive* differential diagnosis can be made *at once*, between lesions which *will* be followed by syphilitic infection, and those which *will not*. A positive decision can not be rendered until after such *interval*, from latest exposure, as may be required to develop some characteristic cell accumulation: either on the site of the lesion or in the adjacent lymphatic channels and glands.

This *interval* is recognized by all authorities as a clinical fact and is characterized as "*the period of incubation of syphilis.*"

The term was invented in accordance with a belief (formerly prevalent) that the *virus* of syphilis was a mysterious impalpable influence. That this, having entered the system at a given point, instantly permeated the fluids and solids of the entire organism. It then accumulated by "a kind of germination" until the point of "*saturation*" or extreme limit of tolerance, was reached. This event was announced by a peculiar and characteristic action, at the point of entrance of the virus, which was termed the *chancre*.

It is plain, however, that such a view of syphilitic infection, can have no support, if we accept the view of a cell degradation, and a systemic syphilitic infection, in accordance with known histological, physiological, and pathological laws.

NOTE.—The only recognizable cell accumulation in syphilis is confined to the lymphatic system. If, during the period of so called incubation, the syphilitic influence has found access to the general circulation, no evidence of it has ever been discovered, in the condition of blood vessels, or of the blood, or in the conditions or sensations of the person so affected.

It is, then, to the local conditions, at the point of inoculation, that we must look for the earliest evidences of syphilitic action. This is afforded, at first, through the microscope, by discovery of a densely packed *non-inflammatory* cell accumulation, which steadily increases, until it is appreciable to the ordinary touch. The same cell accumulation is also seen to occur in the lymphatic vessels connecting the initial lesion with the adjacent lymphatic glands. These vessels are not unfrequently found obstructed and indurated, and, like knotted cords, the size of a crow's quill, or larger, often easily traceable to their gland termination. The associated blood vessels are never narrowed nor interrupted from this cause.

The local induration of a suspected lesion, however, is not *positive* evidence of syphilitic action. Cell accumulation sufficient in degree to produce well pronounced induration, may result from *irritation* of a *simple* lesion. Thus an herpetic vesicle, or pustule, even a simple abrasion, through friction from clothes, or from applications of caustics or astringents, may become indurated sufficiently to raise grave suspicions of syphilis.

Induration, in such cases, is always the result of *inflammatory* action.

The induration of *syphilis* is essentially *non-inflammatory*. The differential diagnosis is aided by means used to combat the inflammatory condition. Under the influence of rest and local sedatives, the *incidental* induration is promptly dissipated; in the initial lesion of syphilis, the induration is more salient. Sometimes, though rarely, the induration is quite obscured by a slight localized serous effusion which gives it a bluish appearance. This I have observed in two cases, where the lesion was on a finger. The same condition quite frequently succeeds well marked indurations near the *fossa glandis*, and is so persistent as to become a valuable diagnostic mark.

The induration may be said to be *characteristic*, when insensitive, dense, and resistant, like cartilage. If pressed between the thumb and finger it becomes exsanguinated, and like in

appearance to the tarsal cartilage when the eyelid is turned back.

Even this most positive evidence of syphilis can not be accepted as conclusive. The induration of a commencing *epithelioma* simulates it very perfectly, and, if an open lesion, its secretion under the microscope presents appearances almost identical. In summing up the whole matter, we are forced to confess that a final decision in any given case is not warranted until some other evidence is present besides the appearance and character of the *local* lesion.

In all cases, where possible, *the person from whom syphilis may have been acquired* should be carefully examined.

In making such examination, search not only for the initial lesion, but for each of the possible *secondary* manifestations. Even when such are found, it must be borne in mind that *a breach of surface on the person exposed* is essential to the acquirement of syphilis, and that this surface must be brought into CONTACT with the syphilitic secretion, either *directly* or *mediately*. So that while the presumptive evidence furnished by *confrontation* is often strong, it is not *necessarily* conclusive.

The following cases will serve to illustrate the importance of caution in arriving at conclusions in regard to the true nature of venereal lesions:

CASE I. Mr. T., aged twenty-three years, on the fourteenth day after his first and only connection, noticed a slight urethral discharge. Under the microscope this was found to be distinctly purulent. No pain on urination. Meatoscope showed the mucous lining of the urethra deeply congested for half an inch. Beyond this there was no purulent secretion; appearances normal. The difficulty was, evidently, not *gonorrhœal*. A syphilitic inoculation was suspected. Examination of the woman with whom he had connection *showed her to be passing through the active stages of syphilis*. No initial lesion was found; but the inguinal, epitrochlean, and cervical glands were characteristically enlarged. Several *mucous tubercles* were discovered within the vulva; one in the *cervical sulcus* and three on the *os tincae*. Besides these, was a double row around the *anus*, eroded and secreting pus freely. In the

presence of such evidences of syphilis, it seemed impossible that the young man could have escaped infection. The urethral discharge was probably caused by a syphilitic inoculation which had not yet produced a well defined initial lesion. Inguinal glands of both sides slightly enlarged. Treatment for syphilis deferred (much against the patient's wish) until evidence of syphilis should become more positive. The urethral discharge gradually declined and disappeared entirely in about a month. Up to the present time (four years from date of exposure) patient has not had the slightest evidence of syphilitic trouble.

CASE II. Mr. H., aged thirty, had a suspicious connection in May last. On the third day following, he noted several small pimples on his prepuce. Fearing venereal disease, he consulted his family physician, who, at once, pronounced the trouble a simple *herpes*. A mild lotion was recommended. Under its use all evidences of disease disappeared, within a few days, and the patient was assured, in the most positive manner, that he was free from disease. June 10th, four weeks after the suspicious connection (and more than two after he had been pronounced free from disease), the patient was brought to me by his physician for an opinion in regard to a small, hard, eroded nodule on the former site of the *herpes*. Inguinal glands on corresponding (right) side, characteristically enlarged. My belief that the nodule was an initial lesion of syphilis was strongly expressed, and the gentleman was put upon a mercurial course. A month later, he called, presenting a well-marked roseola, with the usual secondary gland enlargements. His wife, who accompanied him, had an indurated initial lesion on the lower border of the meatus urinarius, and well-marked inguinal enlargement.

CASE III. Mr. W. V. No unusual trouble until two and a half months ago when ten days after a suspicious connection he noticed a small sore on the right side of the penis. He consulted a surgeon, by whom he was informed that he had a "*soft chancre*;" that he would quickly destroy it by application of nitric acid, and further, that there need be no fear of subsequent trouble. The cauterization was made, was repeated several times, at intervals of three or four days; healing finally taking place in about three weeks. Patient had connection with his wife the night previous to

receiving the surgeon's opinion that he had a *soft chancre*; no connection since.

This gentleman called upon me to ascertain the cause of a papulo-pustular eruption which was confined to the face and neck. I at once recognized it as syphilitic; examined the cicatrix of the so called *soft chancre* and found it distinctly indurated. Gland enlargements of elbow and neck, all well pronounced and characteristic.

In answer to an anxious inquiry as to the possible infection of the wife, I was obliged to admit the possibility of such a calamity. He assured me that she had been, and was then, perfectly well in every respect, "except that she had some little swellings in the right groin; not the least pain." An examination of the lady, on the following day, disclosed characteristic gland enlargements, not only in the groin, but in the arm and neck. No search was made for the initial lesson. She was put upon constitutional treatment for "*a form of leucocythemia*," and remained in blissful ignorance as to the nature of her own and her husband's trouble.

NEW YORK CITY.

Reviews.

Hand-Book of Ophthalmology. By PROF. C. SCHWEIGER, of the University of Berlin. Translated from the third German edition by PORTER FARLEY, M. D., Rochester, N. Y. J. B. Lippincott and Co. 1878. 8vo., 555 pp.

Translations of the writings of the best German workers in medicine are becoming quite common, one of the most prominent reminders of this fact being that magnificent work, the American edition of Ziemssen's Cyclopædia. There is a great difference in translations as to perspicuity; for instance in Hackley's translation of Billroth's Surgical Pathology there are some sentences so confused that they are scarcely comprehensible, but in this book we have not met with one indistinct idea.

Professor Schweiger does not deal in prefaces and introductions, there being neither, but plunges *in medias res*, presenting at once the subject of anomalies of refraction and accommodation.

The book is divided into three parts: The first part treats of anomalies of refraction and accommodation, spectacles, ophthalmoscope and ophthalmometer, and anomalies of the ocular muscles. The second part treats of diseases of the orbit, lachrymal apparatus, lids, conjunctiva, cornea, sclera, iris, lens and vitreous body. The third part, normal fundus, diseases of the choroid, of the retina, and of the optic nerve, glaucoma and amblyopia.

Of that most dangerous and treacherous disease, gonorrhœal ophthalmia, the writer says:—"There are no special symptoms by which a gonorrhœal blenorrhœa can be recognized as such, in cases where it is not possible to discover the gonorrhœa as a cause. Moreover, this etiological fact has no influence upon the prognosis or treatment of the blenorrhœa." We imagine that the above statement will not be indorsed by

the American profession; for an eye infected from a gonorrhœal secretion may be hopelessly lost within twenty-four hours, while an eye equally inflamed from some other cause would give the oculist no special anxiety as to prognosis.

All the acute forms of blenorrhœa are treated the same way if the degree of acuteness and symptoms are the same, whether it be gonorrhœal ophthalmia, ophthalmia neonatorum, or acute conjunctivitis from whatever cause.

The treatment of syphilitic iritis is disposed of in five lines, rather insufficient. In iritis gummosa, an energetic general mercurial treatment is recommended.

In describing the operation for cataract, after the lens has been removed, Dr. S. says:—"As the last act of the operation, Von Hasner recommends a slight puncture of the vitreous body in the depression left by the lens." This last step is unusual, and its utility yet to be established. The operation for cataract, Dr. S. remarks, may be performed either with or without chloroform. No other anæsthetic is mentioned, but we would suppose that the author prefers to operate without an anæsthetic.

There are a good many diagrams and illustrations, which very clearly serve the purpose for which they were intended. Being a Handbook, it does not go into details so much as one would wish, but still it is concisely written and a pretty satisfactory exposition of modern ophthalmology.

A Preliminary Analysis of One Thousand and Sixty Cases of Asthenopia. By C. R. AGNEW, M. D., of New York.

This is a pamphlet reprinted from the report of the fifth International Ophthalmological Congress. As Dr. Agnew says, it is not a treatise on the subject, but merely a contribution to its clinical history. I consider it one of the most thorough and exhaustive analyses of the subject that it has ever been my lot to read. Like all the writings and sayings

of the author, it is exceedingly interesting and to the point, with no superfluity of technicalities or useless phrases.

The author gives the symptoms complained of, such as "My eyes are weak; they pain; they blur," etc., not in language that none but experienced ophthalmologists can read understandingly, but in the words of the patients themselves.

I am glad to see that he puts particular stress upon the importance of the "general medical and sanitary treatment of asthenopia in addition to that which is ophthalmic in its nature;" and also upon the importance of the ophthalmologist "being well posted upon his own ignorance, and know when to call in other specialists to throw new light upon the subject." He further says:—"He must know how to teach his patients how to become better tissue-builders. It is here that the ophthalmologist and the specialist in diseases of women, or of the nervous system, may have to correspond. It is here that the expert ophthalmologist may resolve, with spectacles, a case of asthenopia, in which the neurosis of sensibility had led others to suspect grave disease of the nerve centers. It is here that a wise gynecologist may skillfully relieve some uterine or ovarian condition, and thus enable the ophthalmologist to reestablish the function of vision."

Dr. Agnew gives a series of tables under which he classifies the one thousand and sixty cases, as follows:

The first table gives the sex and condition of life of patient.

2. The number of asthenopes at different ages.
3. Shows the occupation of male asthenopes.
4. Shows the occupation of female asthenopes.
5. Shows the refraction of 1060 asthenopes.
6. Shows the occupation of 112 out of 281 emmetropes.
7. The various local complications in emmetropic cases.
8. The various remote complications of emmetropic cases.
9. Assigned causes of asthenopia in emmetropic cases.
10. Shows the various local complications in hypermetropia, with its modifications.
11. Shows the various local complications in myopia, with its modifications.

12. Shows the remote complications in ametropic cases.

13. Assigned causes of asthenopia in ametropic cases.

I cordially recommend the reading of this little pamphlet to all—surgeons, physicians and specialists. W. C.

Studies in Pathological Anatomy. By FRANCIS DELAFIELD, M. D., Adjunct Professor of Pathology and Practical Medicine, College of Physicians and Surgeons, New York. William Wood and Co. 1878.

Four numbers of these *studies* have appeared—namely, February, March, April and May. In the first number, Dr. Delafield, in a prefatory note, foreshadows the scope of the undertaking as follows:—"In this paper, and in those to succeed it, the attempt will be made to give an account of some of the changes produced by disease. The particular subjects of study will be the inflammations of connective tissue, of the mucous membranes and of the viscera, and the structure of tumors. . . . These papers will give the results of investigations carried on for a number of years, and still far from complete. It is intended to publish these studies monthly. Each paper will consist of from two to four full-page drawings, and the accompanying text. . . . The first twelve papers will include the pathological anatomy of pleurisy, of peritonitis, and of meningitis."

In the February issue plates one and two represent flat connective tissue cells from the dog, and plate three branching connective tissue cells from the omentum of the rabbit. In the April number is represented pleurisy in the dog at the end of the first, third, fifth and eighth day. In the May number the first plate represents empyema in the dog after twenty-four hours, the second after ten days' duration, and the third a vertical section of the human pleura, empyema, being magnified seven hundred and fifty times. This is a laborious and commendable work, and numerous subscriptions should reward the energy of editors and publishers.

Address before the Rocky Mountain Medical Association, June 6, 1877.

By J. M. TONER, M. D.

This address contains "some observations on the geological age of the world, the appearance of animal life upon the globe, the antiquity of man, and the archæological remains of extinct races found on the American continent, with views of the origin and practice of medicine among uncivilized races, more especially the North American Indians."

Really so long a title almost takes away one's breath to read it! Those who, from their reading, remember to what celestial heights Bishop Berkeley rose, commencing with a dissertation on the virtues of tar-water, will see in this address to what altitude of philosophy, to what greatness of research, the honored President of the Rocky Mountain Association can rise from a Pacific palace car. The address commences with Chicago and ends with the "Beloved Physician," and intervening we have *inter alia* the history of the origin of the Association, a list of those who belonged to it and are now dead, the names of the ladies who have been accepted as honorary members, theological opinions and dissertations, historical facts, geology, archæology, etc. The body of the address is filled with much curious knowledge and some ingenious speculations—so filled, indeed, that the stream overflows into copious foot-notes. Dr. Toner has done a good thing in writing this address—a good thing for the present and for the future, and is to be heartily congratulated upon it.

He pays a just compliment to Dr. N. S. Davis, in referring to Chicago as "the adopted home of the Father of the American Medical Association should be the meeting-place of the society which he originated, and which he has watched over with such rare fidelity and judgment, until it has become a beacon that may guide and ethically enlighten every physician of the country who desires to earn honorable distinction and promote the dignity of the profession."

We appreciate the compliment to Dr. Davis, but we do not believe in the functions of the Association as here indicated. A beacon warns, does not guide, and ethical enlightenment is

not one of the principal functions, either theoretically or practically, of the Association. Heaven deliver that Association alike from being occupied chiefly with judicial affairs, or being made the theater of political intrigues. In either case, it will soon really become that which Dr. Toner has with rhetorical inaccuracy termed it, a beacon.

Diseases of the Nervous System—Their Prevalence and Pathology.

By JULIUS ALTHAUS, M. D., M. R. C. P., London, etc. New York: G. P. Putnam's Sons, 182 Fifth Avenue.

This handsomely printed volume of between three and four hundred pages, is dedicated to the memory of the late Professor Romberg. The brief preface is as follows:

“In this volume I have endeavored to elucidate the part played by diseases of the nervous system in rational pathology, and to show the laws to which their occurrence and fatality are subject. I have also fully entered into the special pathology of the several diseases of the nervous centers, which, although much remains to be done, has made gigantic strides in our time. The pathology of peripheral nerve diseases, and the diagnosis, prognosis, and treatment of the entire class of these maladies, will be considered in a subsequent volume.”

Among the propositions which Dr. Althaus establishes from statistics are that nervous diseases cause about twelve per cent. of the entire mortality, being only surpassed in fatality by zymotic, tubercular and respiratory diseases; that they are less numerous in large towns than in the country; that sex has a preponderating influence, more males than females dying from such diseases; that age has a more powerful influence than sex, the maximum being in the first year of life, and a second maximum after seventy.

The classification given by the author includes more than a hundred forms of disease, and many of them are treated of

with more or less fullness as to symptoms, pathology and results. Of course those who are seeking merely or mainly the therapeutics of nervous diseases, will not care for this book; but those who want to study such diseases in the aspects mentioned above, will find it a valuable help.

Rüdinger Atlas of the Osseous Anatomy of the Human Ear—Comprising a portion of the Atlas of the Human Ear. By N. RÜDINGER, M. D., University Professor in the Institute of Munich. Translated and edited, with Notes and an additional Plate, by CLARENCE J. BLAKE, M. D., Lecturer on Otology in Harvard Medical School, etc. Boston: A. Williams and Co. 1874. Folio, 23 pages.

In the *Archives Générales*, December, 1876, we learned that the Section of Otology, at the American International Congress, was under the presidency of Dr. Clarence Blave de Bastou. When the same journal made one of the reporters at the Surgical Section of the Congress Dr. Hadgen, the sin was venial. But to make Blake into Blave, and more and worse, transform our American Athens, Boston, into Bastou—can typographical crime rise to a greater height, sink to a lower depth! We hope the handsome Atlas which Dr. Blake presents the profession, will at least let the *Archives* know who he is, and that there is an American Boston—no more Blave and Bastou, if you please.

“The object of this Atlas is to provide the teacher and student with correct representations of the more important parts of the Osseous Anatomy of the Human Ear, accompanied by explanatory texts and notes, available for instruction or for reference.” The various bones of the ear, and the petrous portion of the temporal bone in two different sections, are accurately represented by nine photographic plates, which are beautiful specimens of the art of photography. These photographs are made by J. Albert, of Munich, from the original preparations of Prof. Rüdinger. Accompanying each plate

is a concise description of its projections, proximate nerves, arteries, etc. This atlas meets a want and is a praiseworthy work, and along with the translator we hope "that a sufficient interest may be elicited to warrant further publications of a similar character."

The Vest Pocket Anatomist. By C. H. LEONARD, A. M., M. D. Detroit. 1878. 60 pp. Published by the author.

This little book, as stated by Dr. Leonard, is founded upon Gray, and while not of special value without one has previously a knowledge of anatomy, still with that previous knowledge gained from anatomical plates and from dissection, it will come in quite conveniently to refresh one's memory. One thing commendable is, that the pronunciation is given of all the muscles, nerves, arteries, etc.

Atlas of Skin Diseases. By LOUIS A. DUHRING, M. D., Professor of Skin Diseases in the Hospital of the University of Pennsylvania, etc. Part Third. Philadelphia: J. B. Lippincott and Co. 1878.

The plates in this part embrace eczema squamosum, syphiloderma erythematosum, purpura simplex, and syphiloderma papulosum et pustulosum. To say that these are admirably executed is only just praise. We trust both author and publisher will meet adequate reward.

Clinic of the Month.

TREATMENT OF MELANODERMA.—Prof. J. C. White, M. D., in a clinical lecture, in the Boston Medical and Surgical Journal, May 16, 1878, after speaking of the causes of excess of pigment, and the varieties, as tanning, freckles, chloasma, melasma, gives the following treatment:

But how should we treat the three cases first cited as illustrating the most important types of melanoderma? We have in all of them, lying in the very deepest layers of the epidermis, an excessive amount of the natural pigment matter: in one patient scattered over the face alone in the form of small spots, in another distributed in large uniform patches over the same part, in the third widely diffused over large tracts of the surface of the body. The problem is the same in all of them, the freckles, the chloasma, the general melasma:—How shall we make it disappear? We can not destroy it, for, as we have seen, it is indestructible, except by chemical agents so powerful that they could not be used upon the skin. We can not cause it to be directly reabsorbed by any external means within our knowledge, although capable of spontaneous involution. We are able to influence its existence to a very slight extent only by internal remedies when its presence is dependent upon conditions of debility, misery, etc., which are themselves in some measure under such control. Can anything, then, be done to cause its removal? You will see numerous remedies advertised in the public prints and by irregular practitioners for the cure of freckles and moth patches, some of them widely known and extensively sold for this purpose. Such remedies do not usually attain so great popularity without some element of positive activity, but their measure of real virtue need not be large to insure a commercial success.

They hit, now and then, just the class of cases in which they or almost any remedy can not fail to benefit, and this is enough to outweigh the countless unknown failures and to perpetuate their reputation. The preparations of this sort ordinarily used in these affections have been taken from our own therapeutics.

We know that the cells of the rete formed by the papillary layer of the corium become in time the flattened horny cells of the outer cuticle, and are cast off in the natural and imperceptible process of desquamation. We know that those which contain the normal pigment share the same fate, and are being constantly reproduced. It is evident, therefore, that if we should remove the epidermis down to the corium by any means we should remove also the coloring matter. Now this may be done by the application of any irritant that is powerful enough to cause a separation by the process of inflammation of the two layers of the skin. This separation, the result of the effusion of serum in considerable quantity from and above the surface of the papillæ, we call vesication. It may be brought about by the use of so-called blisters, or by strong solutions of corrosive sublimate, etc. If we should raise such a blister over one of these patches of chloasma upon the face, we should see after the protecting crust had fallen that we had a new epidermis, red to be sure, but free from perceptible pigment matter. Ere long, however, we should probably find the pigment cells forming again in excess, and the part gradually reassuming its dark tint. Such violent measures, therefore, are not warranted by permanency of results, even if patients would submit to the suffering and considerable temporary disfigurement inseparable from their action. What we can hope to accomplish must be by the more or less constant application of such agents as will so hasten the natural process of desquamation that the pigment cells shall not have time to accumulate in sufficient amount to produce perceptible staining, and yet not cause enough local excitement to prevent daily use or attract observation to the part. The immediate local action should not exceed a slight roughening or scaliness; it should not be allowed to provoke redness or papulation.

A considerable number of substances have the power of thus expediting the formation and discharge of epidermal cells by their action upon the surface of the skin. Among them are borax, sulphur, bismuth nitrate, alkalies, acetic and citric acids, etc. They may all be made to gradually lighten up these over-pigmented portions of integument by frequent and long-continued application. For the milder forms of melano-derma, they will in variable measure be found of service. For our cases of freckling, for instance, we may apply at night any of the following formulæ, taking care that they are used cautiously until the susceptibility of the individual skin is properly tested. As freckles are generally much more pronounced at one season than another, the remedies need not be used so continuously as in the other varieties:

R̄ Hydrarg. am. chlor.,	3 ij	
Bismuth. magist.,	3 ij	
Amyli,	3 ss	
Glycerin,	3 ss.	M.
R̄ Acid. citric.,	3 i	
Aquæ,	3 iv.	M.
R̄ Ammon. muriat.,	3 ss	
Aq. colonien.,	3 i	
Aquæ,	3 viij.	M.
R̄ Zinc. sulph.,	3 i	
Ung. ros.,	3 i.	M.
R̄ Hydrarg. bichlor.,	gr. vi	
Acid. mur. dil.,	3 i	
Aquæ,	3 iv	
Alcohol,	3 ij	
Aq. ros.,	3 ij	
Glycerin,	3 i.	M.

These should be applied over night, and the skin should be thoroughly washed with soap in the morning. They must be used at least for weeks in succession, and resumed whenever required.

For chloasma—the form exhibited upon the face of this woman—a large number of preparations of these and other substances have also been advised, but there is one which surpasses all others in efficacy, one which I always use,—corrosive sublimate in solution. Its action can be most accurately regulated by adjusting the strength of the solution to the susceptibility of the skin in each case. Alcohol is a better solvent than water, because, as it evaporates more quickly, the solution is not so likely to run down upon the contiguous parts; and, as the patches are often abruptly defined, this is of some importance. A solution of four grains to the ounce is usually well borne, and will be found to be the best working strength. It is to be painted with a small camel's hair brush over the pigmented patches at bedtime, a single application only the first two or three nights. Afterwards, if not too stimulating, a second or even a third painting at intervals of a few minutes may be tried, and will generally be well borne. Occasionally a skin will be met with that will bear a repetition of this process in the morning even. Our limit of immediate action should be, as already stated, a roughening of the surface from devitalization of the external layers of epidermal cells. Excessive stimulation will be shown by a reddening of the parts, persistent through the day, an increasing sensitiveness during the application, or even a papular eczematous efflorescence upon the part. Should such results occasionally follow, the remedy is to be suspended until the overaction subsides. Every morning the parts should be washed with soap and water, and, if the skin will bear the additional stimulation, pumice soap may be used with advantage upon a coarse bit of linen for the removal of the dead scales. By these means constantly employed we notice, as weeks go on, that the dark patches become lighter and lighter, and finally, in periods varying greatly in individual cases, not always in direct proportion to the intensity of coloring, assume the normal hue of the surrounding skin. In some cases, however, we do not succeed in causing the discolorations to wholly disappear, but must remain content with a great reduction in the discolora-

tion. These results, moreover, are made permanent only by the continued use of the remedies as long as the pigment cells show a tendency to excessive reproduction. You may be asked, Is it safe to employ for long periods so strong a solution of a soluble salt of mercury? is there not danger of absorption to a serious amount? You may safely answer in the negative. An ounce of the preparation applied in this way over the ordinary moth patches upon the face will last a long time, and can be absorbed only in infinitesimally small amount. In general melasma its use might indeed be unsafe. In all the diffused forms of melanoderma, as in the third case cited, local treatment, excepting upon parts exposed to view, is always impracticable, and internal medication only indirectly of benefit.

THE INFANTILE DIARRHŒA OF SUMMER.—At the stated meeting, April 16, 1878, of the New York Academy of Medicine, Medical Record, May 25, 1878, Dr. J. Lewis Smith made the following remarks:

This summer diarrhœa, as an epidemic, he said, is confined to the cities, being scarcely at all known in the country. In New York it makes its appearance about the middle of May, or earlier, if the season is unusually warm. From that time the cases increase in number and severity until the maximum heat of the year is reached, during July and August. After the latter month it begins to decline, and it at length ceases to be an epidemic about the first of November. Its prevalence and severity is found to correspond with the degree of heat; yet hot weather is not the cause of it. In the rural districts the temperature may be just as high as in the city, but this summer diarrhœa does not occur as an epidemic there. It is, therefore, preëminently a disease of cities, and we must look for some other source for it than simple high temperature. Undoubtedly one of the most important causes is to be found in the very free exhalations arising from decomposing animal and vegetable matter during the heated term; and the disease is always most frequently met with in those

localities where the accumulation of filth is the greatest. Dr. Smith stated that some years ago, while making an inspection of certain portions of New York for the Citizens' Association, he had become fully satisfied in regard to this point. He remembered one block of tenement houses particularly, in which there was little or no drainage, and the noxious exhalations were peculiarly abundant and offensive; and here there was scarcely a young child in the whole block that escaped the affection. Of course we do not know exactly in what way these noxious exhalations, due to the effect of intense solar heat upon filthy streets and domiciles, produce the results noted.

But such atmospheric conditions are not the only source of the trouble. Another very potent cause is found in the diet given to children in our cities. Hence it is that mothers are always so anxious about their infants during their second summer, and it is well known that bottle-fed children are far more severely affected than those which are not. Indeed, it is very rare that an infant under six months, which is artificially nourished, escapes the disease in the city during July and August. The two main causes may be set down, then, as atmospheric and dietetic.

Dr. Smith then went on to speak of the pathology of the disease, making the preliminary remark that he thought he had had as good opportunities for observation in this connection as any one in this country. In looking over his notes he found that he had the records of over eighty autopsies, all made in warm weather, during the prevalence of the epidemic. There could be no doubt, he said, that it is essentially an inflammatory disease, especially after it has continued a short time. For the first few days there may be no evidence of inflammatory action; but at the end of a week or so, lesions of this character are well marked in the intestines, and particularly the colon. Ordinarily the surface of the stomach is quite pale, and consequently presenting no indications of gastritis. Yet, notwithstanding this fact, vomiting is a very frequent symptom of the disorder. Occasionally there is some

hyperæmia of the stomach (more frequently observed in infants of about three months than any others), but, as a general rule, it is entirely absent. The duodenum also generally presents no lesions. On entering the jejunum, however, we find vascular streaks and patches, and these are still more marked in the ileum. The ileo-cæcal valve is frequently the seat of the severe inflammation, and sometimes it is materially thickened. In the large intestine the evidences of inflammatory action are yet more prominent, and there is apt to be a vascular and tumefied state of the entire mucous membrane. The sigmoid flexure is usually the most profoundly affected of all, and this seems to be due, in great part, to the irritation produced by food, which remains longer in contact with it than with the other parts. At the same time we find, along the whole course of the large intestine, the solitary glands or follicles standing out prominently.

In the more protracted cases additional lesions are observed, such as ulcerations, which are more marked in the descending colon, and correspond in position with the follicles, in which the inflammatory action has thus gone on to the point of ulceration. Besides the intestinal lesions there are still others which are more properly complications. As long as the disease lasts, there is always progressive wasting of the whole body. In this some wasting of the brain is involved, and therefore, after the disease has continued for some time, we are very apt to have developed that condition of the encephalon which Marshall Hall and Gooch denominated spurious hydrocephalus. These physicians thought that it was not accompanied by any pathological changes, but late observers have shown that this is not really the case. Its occurrence is noted by the drowsiness of the child, the rolling of the head about, and the depression of the anterior fontanelle, the latter being an important point in the diagnosis between this condition and meningitis. It is characterized by passive congestion, capillary and venous, and also of the sinuses, and transudation of serum sufficient to make up for the wasting of the brain. When the cranial cavity is opened at the autopsy, one

or two ounces of this serum sometimes escape. Spurious meningitis is a better name than spurious hydrocephalus for this hydrocephaloid disease in connection with entero-colitis; and it is rarely or never met with except when associated with, or resulting from, the latter affection.

Another complication not infrequently seen is congestion of the posterior portions of the lungs. Where the child's strength has become greatly reduced, the heart also grows feeble, and, in consequence, hypostatic congestion results in the lungs. As such patients usually lie on the back, the posterior part of the lungs is the most dependent, and this hyperæmia, extending for a depth of almost half an inch, is seen at the autopsy all over the posterior portion of both lungs. It is this, doubtless, which gives rise to the dry, hacking cough met with in a large number of such children. If the patient survives long enough, hypostatic pneumonia is apt to ensue, and this is frequently noticed in post-mortem examinations. In such instances it is sometimes possible to inflate the lungs, and sometimes it is not. The above are the most important anatomical characters of entero-colitis.

The symptoms of the disease are sufficiently familiar to all. In the majority of cases it begins very gradually, and the mother is exceedingly apt to attribute the looseness of the bowels to dentition. The child may have six, eight, or ten passages a day, and yet nothing whatever is done to check the diarrhœa, because it is supposed to be salutary during dentition. Dr. Smith said that even physicians formerly coincided in this opinion; but he himself believed that dentition had very little to do with the causation of summer diarrhœa. Indeed, the younger the child, the more apt it is to be attacked; so that infants are more likely to have the disease before dentition than they are after this has commenced.

Vomiting in such cases is not one of the initial symptoms, but sometimes it is, as when, for instance, the attack is directly attributable to some indigestible article of food. In such a case there is both vomiting and purging from the commencement. Ordinarily, however, there is gradually increasing

diarrhœa for one or two weeks, and then vomiting also sets in. The most severe form of the disease is that known as cholera infantum, which resembles Asiatic cholera very markedly in its symptoms, but has, of course, no connection with that affection. Cholera infantum is to be regarded as simply an aggravated form of entero-colitis, because it is undoubtedly inflammatory in its nature. To look at or feel the skin of a child suffering from it, one could scarcely think that there was much fever present, and yet the thermometer in such cases almost always shows a temperature of 105, 106, or even 107 degrees. Cases of cholera infantum frequently run on into ordinary entero-colitis, when the urgent symptoms are relieved, and so, on the other hand, cases of ordinary entero-colitis are sometimes charged to cholera infantum, in consequence of some imprudence of diet or other source of aggravation.

The stools vary greatly in character, sometimes being yellowish, sometimes brown, and sometimes green; and there is one point of interest in connection with the green color frequently observed. Formerly it was supposed that this resulted from the liver being at fault, and calomel was almost always administered freely in consequence. Dr. Smith states that for years he had not given a particle of calomel in such cases, though sometimes he met in consultation physicians who thought it indicated from the vitiated condition of the bile, as they inferred simply from the green-colored stool. In order to determine this matter satisfactorily, Dr. Smith some time ago made a special examination of the liver in thirty or forty cases where death resulted from entero-colitis, and not in a single one of them could anything abnormal be detected about it, either with the microscope or otherwise. Moreover, he never observed this green discoloration at the point where the bile is poured out into the intestine (as would naturally be expected if it were due to the action of the latter); nor did it make its appearance until he got down to the ileum, several feet below that point. He concluded, therefore, that the bile had nothing to do with the green color observed. It is well known, also, that the stools may present a yellowish appear-

ance when passed, but become green on standing, and especially if in contact with urine. The green color seems in reality to be due (as, indeed, is now generally accepted) simply to acidity. It is a fact that the kidneys are more apt to be affected in entero colitis than the liver; and Dr. Smith thought it highly probable that the persistent vomiting in some cases was attributable to uræmia, in consequence of trouble in the kidneys.

Dr. Smith now proceeded to take up the subject of treatment, which, he said, was one of the greatest importance to every general practitioner. He believed that there were but very few remedies from which it was necessary to select, and for his own part he scarcely ever employed more than two, viz.: opium and bismuth, before the hydrocephaloid stage was reached, and these he considered better than all others. The administration of the large doses of bismuth now employed is of but recent origin, but has been followed by the best results. In ordinary cases it should be given in doses of ten or twelve grains, and it may be advantageously combined with the compound powder of chalk with opium (which contains one grain of opium in forty), or else with ordinary Dover's powder. For general use, however, it is perhaps better to give the bismuth in suspension, and the following prescription will be found a very admirable one:

℞. Tinct. opii deodoratæ, gtt. xvj.
 Bismuth. subnitratis, ʒ ij.
 Syrupi, f ʒ ss.
 Aquæ, f ʒ iss. M.

Dose, a teaspoonful for a child of one year.

Dr. Smith said that he had been much more successful since he had employed opium and bismuth in this way than before, when he would often try a long list of remedies in succession, and not find good results from any. Such a combination as the above is retained on the stomach, and has the effect of both an antiseptic and an astringent. No preparatory treatment is necessary, unless it is found that some irritating article of food has been taken; but most of the cases are consider-

ably advanced when the physician is called in, and any such source of trouble has long since been gotten rid of.

Almost all cases of entero-colitis need stimulus, and brandy is the best form in which it can be given. Of course, the amount should vary according to the age, and Dr. Smith is in the habit of giving three drops for every month of the child's age (when under one year) every two or three hours.

When the hydrocephaloid stage of the disease is reached, the opium should be withdrawn or given very cautiously; but the bismuth may be continued as before. At this period, however, we must depend principally on tonics and astringents, and one of the most useful agents that can be employed is the liquor ferri nitratis. The following prescription will prove of great service:

R. Tinct. calumbæ, f 3 ij.
 Liq. ferri nitratis, gtt. xvij,
 Syrupi, f 3 ij. M.

Dose, a teaspoonful.

At the same time the stimulus should be kept up as before.

Finally, the kind of diet used is of the utmost importance. If the child is under one year old it should at once be removed to the country, or a wet-nurse should be provided for it, as no artificial food is reliable. If both of these are impossible, the best cow's milk should be prepared in such a way as to resemble healthy human milk as much as possible. The milk should be allowed to stand for some time, and then only the upper third of it employed. In this way the larger part of the sugar and butter will be obtained, while the indigestible casein (which settles to the bottom) will be avoided. As regards farinaceous preparations for children under six months old, Dr. Smith prefers Mellin's Liebig's food, which also has the endorsement of such authorities as Eustace Smith and Tanner. Its taste is quite sweet from the dextrine and glucose which it contains, while it is almost entirely free from starch. When added to cow's milk, it makes as good a substitute for mother's milk as has as yet been obtained. After the age of six months infants can digest a certain amount of

starchy food, and then Robinson's prepared barley may be used with advantage, if it is sufficiently boiled. As a rule, however, Dr. Smith prefers Ridge's food, which is highly recommended by Steiner, of Germany. Dr. Smith formerly used to employ Nestle's food, but has been obliged to give it up, when the bowels are affected, on account of its laxative effect. In cases of habitual constipation in young infants, which is often a very perplexing condition to the practitioner, he has found it of very great service.

QUINIA: ITS INFLUENCE UPON UTERINE CONTRACTION.—Dr. F. Gundrum, in the *Detroit Lancet*, May, 1878, speaks thus of the above use of quinia:

I desire to draw the attention of my professional brethren to the use of quinia to stimulate uterine contraction. I have kept track of nineteen cases of inertia uteri where quinia was used to stimulate muscular power and contraction, and in all but one case I obtained splendid results. In the eighteen cases the women were all delivered within two and a half hours from the time of administering of remedy, and several of them within an hour. Having become dissatisfied with ergot several years ago as being unsafe and unreliable, I was induced to try quinia, it having been recommended by a few practitioners through periodicals. I give in brief a few cases.

CASE I. Mrs. X., Stanton, Mich.; Dr. McL. in attendance; labor began at 3 A. M.; I arrived at 11 A. M.; patient well developed; age, thirty-three; first child; full term; vagina in normal condition; os dilated to the size of a trade dollar, or a trifle more, thick, soft, cool and covered with mucus, and pliable. All that seemed to be required was the *vis a tergo*. With the consent of Dr. McL. I gave fifteen grains of quinia, and in thirty-five minutes by the watch the uterine contractions became harder and longer, and in one hour and a half we had delivered child and placenta.

CASE II. Mrs. D., aged forty; tenth child; patient rather feeble and worn out from hard work; labor commenced at ten A. M.; was not called till 4 P. M.; os dilated to three to

three and a half inches in diameter, and it seemed as though the head would slip through anyhow. Stimulation and friction over the uterus failed to awaken anything new, she having had feeble uterine contractions since morning. Not being in a hurry myself, any more than the uterine contraction, and as the offspring was running no risk, I concluded to give nature a full chance. After waiting four hours, I concluded to try fifteen grains of quinia. This was given at 8 P. M. In twenty-five minutes uterine contractions became more forcible and prolonged, and in one hour and ten minutes the child was delivered.

I have given quinia, where ergot had failed, with the best success; but my last case illustrates this very forcibly.

I was called to Mrs. N. at 1 P. M. She had been in labor seventeen hours. Examination revealed a roomy pelvis; os dilated to a size sufficient to introduce two fingers; membranes entire; pains of moderate intensity, and of that miserable and unbearable kind that we usually get while the cervix is dilating. I assisted some in the dilating process until it was two and a half inches in diameter, and quite a wedge of fluid protruded through the os into the vagina, but uterine contraction remained feeble. The woman being rather large, I suspected there might be too much amniotic fluid, and so I ruptured the membranes and let off the fluid. Pains improved a little, but soon lapsed back into the old condition. Friction over uterus, with stimulating drinks, etc., failed to improve things any. Everything was in the best condition, and it seemed that if we had a half hour's good uterine contraction, our tedious task would be ended.

I had two drachms of Squibbs' ergot with me, and, thinking I might be unduly prejudiced against this by some much-lauded oxytocic—and if ever there was a good case for ergot this was one—I gave one drachm, and in one hour and a half gave the other, with scarcely any result. We got, for about an hour, a little better uterine effort, but not enough to bring about any result. I waited two hours after the last administration. In the meantime I ordered some light nourishment,

which was relished, thinking this would more certainly insure absorption of the ergot, but it was of no use. I was utterly disappointed. I now asked permission to apply forceps, but was bitterly opposed. I sent the husband of patient to town after fifteen grains of quinia, which took up one hour and a half. I was much worried for the life of the child. I administered the quinia, and in forty minutes thereafter good uterine contraction began, and in forty-five minutes from that time the child was still-born, and all efforts failed to resuscitate it. The child was flaccid and poorly nourished, with a very small cord and placenta, but was alive before the administration of ergot. Certainly uterine contraction did not hurt this child. May I ask, did ergot not have something to do with the result? We still have high authorities and teachers who recommend this agent, and others condemning it. What shall we do? I say, let ergot alone as an oxytocic; at least never give it unless you have your stethoscope to keep track of the fetal heart, and a pair of obstetric forceps to deliver the child at any moment. Quinia can do nothing but good, and I advise it in preference to ergot every time. Use your quinia and forceps, and leave ergot to be given just before delivery is to be completed to insure post-partum uterine contraction. I hope this may induce others to try quinia as an oxytocic, as on inquiry among practitioners in this and other sections of the state I find it is scarcely ever used.

RETENTION OF URINE IN THE FEMALE.—Dr. Croom concludes a paper on the above subject, *Edinburgh Medical Journal*, May, 1878, with the following statement of the causes of such retention;

1. Injuries or contusions during labor, acting directly or by subsequent inflammations.
2. Pressure of displacements or tumors acting mechanically on urethra or neck of bladder.
3. Injuries or growths acting reflexly.
4. Diseases of nervous system.
5. Direct obstruction within the tube of the urethra, as from stricture or foreign bodies, such as a calculus.

Notes and Queries.

ARE YOU GOING TO BUFFALO?—Nearly a year ago, it was our good fortune to spend an hour with Oliver Wendell Holmes at his residence. It was a June morning, and a walk on some squares, with our kind friend Dr. Chadwick, prefaced the call—a walk which was peculiarly trying, the heat was so oppressive. The sun was shining down the length and breadth of Beacon street, as if determined to evolve life from bricks and cobble-stones, and drive animal and human life under shelter or into the sea—shining down so fiercely that one walked with half-closed eyes for partial escape from its glare; scarcely a breath of air stirring, and that which was hot as the expiration of a furnace. But that was Beacon street in front, Beacon street as we trod its pavements. Once in Dr. Holmes's residence, and seated by an open window in the rear, through which came at least whispers of air that had caught some little coolness as they danced in the shimmering sunshine over the lake-like expanse of Charles river; above all, now listening to the utterances of that large wisdom and genial wit that have blessed the world, life to us not only became again tolerable, but a high joy. After directing our attention to Bunker Hill monument, Dr. Holmes pointed to the prison, remarking, "There is where we put our bad men; and there"—pointing to the medical college—"is where we take our good men and make doctors of them."

We know a large number of other medical schools, in addition to Harvard, have taken good men and made doctors of them. We know that all the subscribers to the *American Practitioner*, especially those who have paid their subscription in advance and have got their friends to take the journal, are good doctors. Now, these good doctors ought to go to

Buffalo—go for their own sake, go for the sake of others, go for the benefit of the profession, go for the benefit of their patients.

Go to Buffalo for a rest. How pleasant to pass the day thoughtless of calls or office hours, and the night with its darkness and sleep unbroken by an impetuously-rung door-bell!

Go to Buffalo to greet and be greeted by old friends, and to make new ones. Good points, too, will often come out in some neighbor away from home, who at home seems jealous and selfish; or possibly our own eyes were hitherto a little dimmed by the mists of prejudice from inevitable rivalries and conflicting interests that belong to a crowded profession. He learns to think better of you and you of him, when you are thrown a while together in a new place.

Go to Buffalo, because you will meet there many of the leaders of American Medicine, and be thus enabled to more correctly estimate them. Some of them will fall below your ideal, and others rise above it. Many an idol is dethroned when men get close to it, and find out what sort of stuff it is made of. King Log astonished his subjects at first, but they soon contemned him, and prayed Jupiter for his removal. Have we had no King Logs cast into medical frog-ponds?

Go to Buffalo, because the American Medical Association is the representative of the profession of the United States, and you are an integral part of that profession. It is yours to contribute in directing the policy, forming the character, determining the purposes and action of the Association.

Go to Buffalo, because you can there contribute something to the sum of general or of individual professional knowledge. You will find in the multitude of doctors there assembled the first week in June, old doctors and young doctors, urban doctors and rural doctors, doctors from beyond the Allegheny mountains, doctors from beyond the Rocky mountains, and doctors from the vast empire between, some who will be grateful for your experiences and the results of your studies: you will accomplish some good, even though delivering no

address or reading no paper. There too, in the absence of paper or address of your own, you can discuss for the benefit of those who hear, the address and papers of others.

Go to Buffalo, for the influence of your example and the power of your presence.

Go to Buffalo, for the purpose of learning some new things as to the prevention or cure of disease. You can surely learn them there, and return better fitted for your professional duties—return laden with blessings for your patients, and helps in your practice. Are you going to Buffalo? The question is put. The vote is unanimously in the affirmative.

STATE MEDICAL SOCIETY OF INDIANA.—The twenty-eighth annual session was held at Indianapolis, on Tuesday and Wednesday, the twenty-first and twenty-second of May. The attendance was large, about two hundred and fifty physicians being present. The president, Dr. L. D. Waterman, delivered an able address on Public Health. The general circulation of this address among the legislators of the state will do more to secure proper sanitary legislation than a bushel of resolutions and a car-load of committees.

Some good papers were read, one on *Placenta Prævia*, by Dr. George Sutton, was of especial interest.

Dr. L. Humphries, of South Bend, was elected President; a better selection could not have been made.

We have made every effort to procure an abstract of the proceedings for publication in this number, but failed.

TO DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION. Those living in the South and West will do well to go to Buffalo by the way of the Toledo, Wabash and Western and Canada Southern roads, as these roads offer excursion tickets to delegates and their families for half the usual fare. Tickets can be procured for the round trip, on presentation of certificates of appointment, for one full fare. From Indianapolis the fare will be, by the I. P. & C. road to Peru, and then by the T. W. & W. and the C. S. roads, \$16.60 for the round trip.

BOB SAWYERISM IN THE PROFESSION.—We hasten to inform our readers, lest some of them should conclude that Dr. —, of —, is meant, that the following is from the Detroit Lancet:

We can not ourselves understand the itching some men in the profession have to bring themselves surreptitiously into notice. There is scarcely a newspaper one can take up but he is treated to the wonderful achievements of some doctor, who has removed a tumor, or amputated a limb, or accomplished some wonderful cure, which, Bob Sawyer-like, he desires to bring before the public. If this penchant was confined to men from whom we expected no better, then it might be regretted less, but when those whom the profession esteem, and in a measure look up to, descend to such contemptible charlatanism, our regret for the decay of the true *esprit du corps* which should animate the profession is unbounded. If it were fully realized how little really is gained by these clap-trap methods of advertising they would certainly be less frequently resorted to. We were recently asked by an intelligent gentleman how much Dr. — paid the newspapers for advertising him, since he seldom looked at a city paper without seeing his name mentioned in some connection or other. And this is about the extent to which the intelligent public are gulled by such quackery. Its estimate of a physician is not by the frequency his name appears in the public prints, but is based upon merits which he can not very well advertise. The profession itself, of course, is never deceived by such shams, but take them at their real value, and there is no surer method of losing its esteem and respect than by resorting to such unethical methods to make popularity.

MITCHELL DISTRICT MEDICAL SOCIETY.—The fifth anniversary of the Mitchell District Medical Society will be held at West Baden Springs, Orange county, Indiana, on June 26th, 27th and 28th, 1878. Members and their families, of adjoining county and district societies, are invited to the meeting.

G. W. BURTON, Sec'y, Mitchell, Ind.

DR. YANDELL'S LETTERS FROM ABROAD—No. II.

LANGHAM HOTEL, LONDON, ENG., April 30, 1878.

MY DEAR PARVIN: Though I haven't forgiven you—and at present never intend to—for booking me to the readers of the *American Practitioner* for a series of "charming letters" during my summer wanderings, your private confession (received to day) has so far approximated the edges of the grievous wound in my feelings, that I have determined to write for our journal an occasional letter, provided you will hereafter keep your opinion as to its quality entirely to yourself. Will you? If "yes," then here goes. If "no," then what follows is not to go—to the compositor.

Allow me to begin with a remark on the weather. There is no wedge equal to the wedge meteorological for opening up a conversation. Let me add that it is in universal use here. Partly, I suppose, because they haven't as fine an article of weather as we have, and then, being an old country, they haven't as many new things to talk about. Whether either or both or neither of these suggestions be correct, the fact is that for ten days past the weather has been fine—fine for any latitude. The skies have been clear, the sunshine pleasant, and the air bracing. And all of London feels the better for it. The tone of my own nervous system has improved. I find it at last possible to sleep; and begin to look forward to the time when an appetite will return to me—for appetite and I have been strangers these two years. I should be willing to compromise on a very small, if it were but a regular, appetite. I have already seen enough here to satisfy me, however, that if the keenest appetite were vouchsafed to me, my original make-up contains no receptacle which would carry the fodder and fluids which I see these fine Englishmen daily put under their capacious waistcoats. I would give all my real estate in exchange for the appetite and food-taking capacity of the average Londoner. It almost fills me with envy.

The kindly gentleman and great actor, Mr. Joe Jefferson, and I chanced one day to be passing the room in which the "learned pig" was on show. We went in and saw the long,

lean, bluish-gray porker go through his really extraordinary performances; and on coming out I said, "Well, Mr. Jefferson, what do you think of him?" He replied, "Doctor, I'm bewildered." If I am not actually bewildered, I have a feeling akin to bewilderment when I see the amounts these people eat and drink. And they drink no water. Water as a beverage is unknown here. It is used for washing, in cooking, in fever, and for diluting spirits, but water "straight" as a drink, never!

I thought the other night, as I listened to the great philanthropist and greater physician, Dr. B. W. Richardson, lecture on Alcohol in Health and Disease, and heard him declare that in the former of these conditions alcohol was NEVER necessary and generally hurtful; that among the first steps in the great reform which he proposes would be to get a supply of pure water, in which I am told London is deficient. [May be I was told so by a spirit drinker.] Be this as it may, I believe that if I could find the same appetite and capacity to take food that I see on every side of me here, I wouldn't study too minutely the question of whether the fluids that entered into my dietary came fresh from nature's alembic or bore the aroma of the grape. Good appetite, good digestion, along with good food, are summed up in the word health; and this to one who hasn't it is more to be desired than the almost fabulous wealth in which this great city seems actually to abound. I would wager that Imaum Ali Zadé had himself been to London and seen the almost unlimited capacity of these robust islanders to store away spirit and other rations, when he answered Mr. Layard's polite request for the statistics of Constantinople. Do you remember it? It ran, I think, about thus:

"*My Illustrious Friend and Joy of my Liver:* The thing you ask of me is both difficult and useless. Although I have passed all my days in this place, I have neither counted the houses, nor have I inquired into the number of the inhabitants; nor as to what one person loads on his mules and another stores away in the bottom of his ship. That is no

business of mine. Shall we say—Behold! this star spinneth around that star, and this other star with a tail goeth and cometh in so many years? Let it go! Will such knowledge create in me a double belly?”

If the turbaned Turk and his countrymen had been given more inquiring minds, they might possibly have acquired the duplicate alluded to. I think they must be a common possession about here. No nation (at the present time at least), can be truly great which does not possess a climate which excites appetite and promotes digestion, with ample means to gratify the former. A people which lives on rice and oil, or on onions and pepper, or on snuff and radishes, can not stand against the meat-eating races of which this is the chief, if not the most powerful as well.

Parvin, I wish you were here with me. Of course I know you'd be for running off to the Obstetrical Society, and calling on Dr. Barnes, and Dr. Graily Hewitt, and Dr. West, and Dr. Playfair, and Mr. Spencer Wells, and others of the big guns in that line. But I would restrain you for yet a few days. They haven't returned from their "outing." They are not yet back from their Easter holidays. And then the schools are closed, not to open till next week. And when they do, they are only summer affairs—places where the embryonic Esculapii get their spoon food, and where the younger teachers take their preparatory gallops. Clinical teaching of course goes on, but even here I fancy the men are not on their metal. They work because they must. The didactic folk have gone to the streams where the trout and salmon disport, or to the meadows which are all ablaze with April flowers; there to amuse and rest themselves after their winter's labors. So I should put my arm in yours, and e'en persuade you that to lounge was sometimes healthful, and here was to the new-comer at least positively exhilarating. I know you have dwelt within the gates of London, and it is a city of the same infinite variety and endless contrasts that it was then. It is here that you see still the smallest railway coaches and the largest wagons; the hugest horses and the tinniest ponies; the dingi-

est houses and the cleanest streets; the glossiest thoroughbreds and the shaggiest donkeys; the largest cats, the least wee bits of dogs; the vastest palaces for royalty and its belongings; the costliest structures for gin and its kindred spirits; the noblest churches, the most seductive "hells," the grandest charities, and a countless multitude hastening to fill them; the best dressed men, the worst dressed women; the richest and civilest people on the earth.

I should do myself a great injustice if I did not hasten to add that, though a thoroughly well dressed woman is an exception here, beautiful women abound. They greet the eye on every side. They ride on horseback. They go on foot. They sail in boats. They are borne along in stately coaches. They drive in phaetons. They pour out of omnibuses. They stride through the parks. They stroll along the banks of the river. They flash in and out of the shops. They pack in the theaters. They wedge in at the promenade concerts. They rise tier upon tier at the opera houses. They are in flocks at the churches. They are sunny, happy-looking beauties. They are modest; they are simple; they are natural; they are sweet-voiced; and they are in "numbers numberless." They have lustrous eyes and rounded throats, well-poised heads and a wealth of golden hair, such as that with which King Arthur used to love to play; sloping shoulders such as those which shone in long lines about the Princess; taper fingers, shapely feet, and well-turned, sinewy ankles. But, O, Parvin! must I say it?—these marvelous beauties wear colored hose!

Have we lounged enough for the nonce? Perhaps, then, I had better turn on a little physic, enough, say, to remind us of the shop, lest our brother be offended and, because we are not solemn, write us down as too gay for our grave calling.

"Well, Prentice, what's the news this morning?" a gentleman once asked. "See the Louisville Journal," replied the distinguished editor. So I might say to him who thirsts for medical science pure and undefiled, "See the pages which precede this letter. Read the 'Original Articles,' turn to the 'Clinic of the Month,' run over the 'Reviews,' and then—

order the book." But I won't. I, because I am a surgeon, must talk to you of broken bones and bleeding vessels; and you, because you are an obstetrician, must needs in this friendly correspondence write of the funis and the forceps.

Wednesday I passed at St. Thomas's, one of the finest hospital structures in London. It faces the Houses of Parliament on the opposite bank of the Thames, and its grounds, etc., have a frontage of six hundred yards, running quite to the water's edge. I saw three of the surgical staff—(Mr. Mason not being on duty)—Mr. MacCormac, Mr. Sidney Jones, and Mr. Croft. The last named gentleman is known to Americans as the author of the articles on Hectic Fever and Traumatic Fever in Holmes's *System of Surgery*. Mr. Jones's contributions to medical literature, though numerous, having been mainly confined to periodical publications, have not found their way to the United States. Mr. MacCormac is well known to us all as the writer of "*Notes and Recollections of an Ambulance Surgeon*," a publication which, being timely and the work in it well done, had an immense run, especially on the continent. Mr. M. operated for an enlarged ganglion on the wrist, by first dissecting through the muscles of the thumb on the palmar side, and then above the annular ligament, opening the cyst and carrying a seton through the tunnel he had made. Carbolic spray was used and the wound dressed antiseptically. Esmarch's bandage was omitted, for the reason, as the operator remarked, that much bleeding was not anticipated.

Mr. Jones exhibited a case of extrophy of the bladder in a boy, where the work of roofing in the organ had been very satisfactorily done by turning down two parallel bars of healthy tissue from the adjacent abdominal walls, and fastening them in the groins. He then proceeded in a similar case to divide one of the two bars which he had previously made, and which was just ripe for the work, and attach its end to a convenient point, freshened for the occasion, whereby he quite covered in the extruded bladder. In this little work, which

might be said to be necessarily more tedious than interesting, Mr. Jones exhibited the patience and attention to details essential to success in all plastic surgery.

Mr. Croft transfixed a couple of varicoceles with pins, and secured these with the figure of 8 suture. He then divided the veins subcutaneously.

Each surgeon made to the students present a few remarks concerning the nature of the cases, and descriptive of the operation. I think they might have added, without harm, the names of the originators of the several procedures which they practiced. If teachers would more generally do this, the taught would know more of the history of operations.

Friday, I accompanied Mr. Maunder through his wards in the London Hospital. They alone contain upward of one hundred beds, all of which are at present occupied. Mr. Maunder's work on Operative Surgery introduced him very favorably to the profession in America. He keeps up his labors in this field by regular lectures and demonstrations to the classes of the London Hospital School. He has been a somewhat industrious contributor to the periodical literature of the day, and an active worker in the societies to which he belongs, besides being the winner of several prizes in the matter of essays. But if I were called on to say which of all Mr. Maunder's writings would endure the longest, I should name his paper on Improved Excision of the Elbow-Joint, published now a few years back. The operation which he there introduces is a real advance on the older methods, and makes in proper cases enduring benefit the rule instead of, as before, the exception. I think no surgeon who has done the operation as first practiced by Mr. Maunder, and by any other method, will deny this. A man was admitted to hospital the day that I was there, in whom Mr. M. had excised the elbow-joint seven years before, where the limb was absolutely as useful as the sound one.

Monday, I went to the Royal College of Surgeons (where I was admitted by a card from Mr. Heath), and witnessed the examination of some of the candidates for the diploma of

that renowned institution. The four young gentlemen who were under fire to-day, were standing their first professional examination. They will come up for the final trial in another twelvemonth, when, if again successful, they will get the coveted diploma. When they first came up, each was given a copy of the following:

ROYAL COLLEGE OF SURGEONS OF ENGLAND—DIPLOMA OF MEMBER.

Anatomical and Physiological Examination—From 1.30 to 4.30 o'clock P. M. Candidates *must* answer at least four (including one of the first two) out of the six questions.

- I. Mention the Forces concerned in the Venous Circulation, and describe their action.
- II. Give the Minute Anatomy of the Nasal Mucous Membrane.
- III. Describe the attachments of Muscles of the Tibia, and mention the Nerve-Supply of each.
- IV. Describe the Anastomoses of the Scapular Arteries, and the dissection required to expose them.
- V. Give the relations and distributions of the Portio Dura Nerve, outside the Stylo-Mastoid Foramen.
- VI. The Pharynx being opened from behind, describe the parts brought into view without further dissection.

These questions must be answered in writing in the College, one of the examiners being present, and between 1.30 and 4.30 P. M. The time is ample—a man that can not answer the questions in three hours will not at all. Messrs. Holmes, Wood, Hulke, Durham, Pick, Power, Wagstaffe and Mr. Savory, the last being chairman, compose the present examining board, appointed by the Council of the R. C. S.

The examinations are conducted in one of the rooms of the College. Foreign physicians and members of the College are admitted at all times, thus in one sense making the examinations public. Candidates are known by their numbers, not by names. An examiner is not permitted to examine men from his own college, those whom he has taught; he may be present, but can not ask a question. The applicant is questioned by each examiner for ten minutes, a second examiner writing down the questions. This list of questions, along with the vote as to qualifications, is subsequently attached to

the candidate's number, the purpose of which doubtless is to vindicate the action of the examiners in case a rejected applicant should make complaint of the character of the questions. Both examiner and examined stand the entire time. Wet and dry preparations, fresh dissections, microscopes, etc., are used.

Three of the four I heard examined answered remarkably well, and passed; the fourth was referred back to his studies for six months. The manner of the examiners and the mode of putting questions were all that could be desired—kindly, considerate and fair, and relieved the embarrassment of the timid. I copied the questions, and you will see that they are fairly searching. They were as follows:

Pigment cells, coats of eye; spinal cord, its functions; post mortem, digestion; unstriped muscle; contraction of muscle; vomiting, varieties, how produced; adipose tissue and its uses; minute structure of lungs, minute lung structure, microscopic appearances; air, composition of—changes during expiration; kidney, its structure and functions; bone, and its structure; urine, constitution of, tests in.

In anatomy, the candidates were given the bones, preparations, etc., and questioned on the “lower jaw; diaphragm; longitudinal section of the rib; Scarpa's triangle; gluteal region; popliteal space; subscapular muscles; axillary region; neck; submaxillary triangle; clavicle; male pelvic organs; anterior triangle of neck; bones of foot and attachment of muscles to; sphenoid bone; tendons of articulation; front of thigh; horizontal section of the brain, parts brought into view; stomach; liver; side view of pelvis, parts exposed.”

A repetition of questions is avoided by each candidate being given a copy of those he has been asked, as he passes from one examiner to another.

The recent action of the Medical Council here is considered to have settled the question as to female practitioners in this kingdom. “*Places aux dames!*” from this time forward. That most estimable lady and distinguished physician—the peer of the best—Mrs. Mary Putnam Jacobi, settled that question for us in America. The Medical Examiner sums up

the bill as agreed to as follows: Provision should be made that the education and examination of women shall be conducted entirely apart from the education and examination of men; female practitioners registered in a separate division of the medical register; and the licensing body, which has not already done so, should be compelled to grant its diploma to women. We have heard, the Examiner thinks, "the last sad cry of expiring exclusiveness, compelled to surrender everything, but still clinging to its titles. What the public wants is competence; the women want competition, and the scheme of the Council is calculated to secure both these aims." He concludes with the Christian benediction (altered for the occasion), "Peace on earth; good will toward *women*;" to which you and I, Parvin, will reverently say, Amen!

Faithfully yours,

D. W. YANDELL.

PNEUMONIA FROM RAILWAY SHOCK.—A case decided recently at the Leeds Assizes, before Mr. Baron Pollock, can not be very reassuring to the railway companies. Hitherto the results of accidents for which they have been called upon to compensate the sufferers have been confined to the direct effects of injuries, the simple traumatic consequences, or the changes which those lesions initiate. But now it would appear they must include among the occasional effects of their collisions at least one disease commonly unassociated with "surgical" lesions, even on the broadest and most inclusive grouping—acute pneumonia. Of course, pneumonia may result from a wound of the lung, but in this case there was no such connection, and it was urged that a pneumonia occurring as the only sequel of an accident which caused no wound or contusion that could directly damage the lung, was the result of the accident. The case is thus of great medico-legal importance, and it is also of much pathological interest. The sufferer had died of the lung disease, and the action was brought by his widow, who stated that her husband was in good health on the morning of June 19th, when he left home. In the railway journey to Sheffield that day a collision occurred

between the train in which he was traveling and an express, and in the collision he was, according to his subsequent statement, considerably shaken, being, he thought, thrown against the front of the carriage. He was much frightened, and was helped out of the carriage. He was driven to his destination, where he transacted some business, and asked for a chair, stating that he felt faint, and that his back was hurt. On arriving home in the afternoon he had a frightened, haggard look. Mr. Bennett, of Cleckheaton, found on examination that his breathing was hurried, and that he complained of pain in the chest and back. No external bruise or injury could be detected, but the right side of the chest was extremely tender. The next day some signs of pneumonia were apparent in the side, and the inflammation gradually spread, and apparently, on June 26th, signs of pleurisy were added to those of the pneumonia. The diagnosis was confirmed on July 3d by Dr. Clifford Allbutt, and on the same day the patient died. The diagnosis was confirmed also by a post-mortem examination. Mr. Bennett expressed his belief that the pneumonia was the result of the shock to the nervous system, which interfered with the circulation of the blood through the lungs. Dr. Allbutt was also of opinion that the railway accident was the cause of the pneumonia. He was subjected to a searching cross-examination, and could not state that he had ever known a case of pleuro-pneumonia caused by a shock, in which there was neither broken rib, bruise, laceration of the pleura or lung, or effusion of blood, although his impression was that he had read of such cases. In reply to further questioning, as to whether pneumonia did not arise from changes in the blood, and whether he could suggest any other way in which it might be caused, he frankly disclaimed for himself, and the human race, "the slightest knowledge" of the causes of pleuro-pneumonia. Mr. Jessop, however, came to the rescue with a very pertinent case. He had known an instance of a man who had fallen over the edge of a quarry and had broken his thigh. There was no evidence of other injury in any part of the body, and yet pleuro-pneu-

monia set in. Dr. Eddison, who had been present at the post-mortem examination of the body of the plaintiff's husband, expressed a corroborative opinion as to the cause of death. The case then terminated by an agreement on the part of the counsel for a verdict against the company with £1,500 damages. In a case in which such different opinions might, very honestly, have been held, it is a matter for congratulation that the customary spectacle of conflicting medical evidence was avoided. The opinions expressed were certainly, considering the circumstances of the case, reasonable. There can be little doubt that the man's death was the result of the accident, and that it was caused by the pneumonia, although how the latter resulted is by no means clear, and is of less practical than pathological importance. It is certain that mental or physical nerve shock may cause profound visceral changes, and it is highly probable that it may give rise to pneumonia. At the same time the cases on record, which are not numerous, of pneumonia without direct and obvious injury to the lung, are those in which there has been abundant contusion of the thorax, and it would seem probable, from the tenderness which existed, that such contusion occurred in this case. The possibility of a direct injury to the vascular tissues of the lung, leading, in the depressed nervous condition of the patient, to a progressive and excessive inflammation, can not be so excluded as to render the purely neurotic theory one of high probability. (*Lancet*, April 27).

THE CIRCULATION OF THE AMERICAN PRACTITIONER.—A recent exchange states the circulation of this journal to be nine hundred. This number includes merely those sent by J. P. Morton and Co. from Louisville. Cathcart and Cleland send from Indianapolis five hundred, so that the entire circulation of the AMERICAN PRACTITIONER is one thousand four hundred instead of nine hundred. Rowell's Directory has received no attention from our journal for more than two years at least, and is not therefore a reliable authority upon this matter.

AMERICAN MEDICAL ASSOCIATION.—The committee of arrangements in Buffalo are active in making preparation for the meeting of the association, and for the accommodation of delegates and their families. They present for the information of the members of the association the location and terms of the following hotels:

Tifft House, 465 Main st., \$3.00 per day.

Mansion House, cor. Main and Exchange, 2.50 “

National Hotel, Exchange, opp. Cen. Dep., 1.50 “

Continental, Exchange, cor. Michigan st., 2.00 “

Bonney's Hotel, Washington, cor. Carrol, 1.50 “

United States Hotel, Terrace, cor. Pearl, 2.00 “

Broezel's Hotel, 127 East Seneca, . . . 2.00 “

American Hotel, East Swan, cor. Ellicott, 1.50 “

It is believed all guests will be thus amply provided for during the meeting. (Buffalo Medical and Surgical Journal.)

STATE MEDICAL SOCIETY OF ARKANSAS.—The third annual session was held at Fort Smith, May 1, 1878.

The following parties were expelled: Drs. P. H. Ellsworth, O. A. Hobson, G. W. Lawrence, S. W. Franklin and E. A. Shippey.

The list of delegates to the American Medical Association is as follows: W. B. Welch, P. O. Hooper, D. A. Linthicum, E. R. DuVal, R. G. Jennings, R. Brunson, W. W. Bailey, J. E. Bennett, J. S. Shibley, A. N. Carrigan, F. N. Burke, S. W. Jones, W. H. Hawkins, C. S. Gray, B. F. Fortner, D. H. Stayton.

A CRUEL COINCIDENCE.—At a recent meeting of the New England Psychological Society, Boston Medical and Surgical Journal, May 16th, Dr. Draper remarked that one person in six hundred was insane or idiotic in the United States—just the proportion of physicians to the population.

THE MORALE OF PHYSICAL SURROUNDINGS.—This is the title of an interesting and thoughtful article by Dr. J. Milner Fothergill in the May number of Good Words, a monthly which has long been one of our most welcome visitors.







